ECONOMIC SURVEY OF EUROPE IN 1979

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The European Economy in 1979

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ECONOMIC SURVEY
OF EUROPE IN 1979

THE EUROPEAN ECONOMY IN 1979

Prepared by the

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PRÉFACE

The present *Survey* is the thirty-third in a series of reports prepared by the secretariat of the Economic Commission for Europe to serve the needs of the Commission and to help in reporting on world economic conditions—a task which the Economic and Social Council of the United Nations has entrusted to the Department of Economic and Social Affairs.

This *Survey* is published on the responsibility of the secretariat, and the views expressed in it should not be attributed to the Commission or to its participating Governments.

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EXPLANATORY NOTES

The following symbols have been used throughout this *Survey*:

.. = not available or not pertinent;

— = nil or negligible;

* = estimate by the secretariat of the Economic Commission for Europe;

| = signifies a break in the comparability of a statistical series.

In referring to combinations of years, the use of an oblique stroke—e.g. 1977/78 signifies a twelve-month period (say from 1 July 1977 to 30 June 1978). The use of a hyphen—e.g. 1975-1977—normally signifies either an average of, or a total for, the full period of calendar years covered (including the end-years indicated).

Unless the contrary is stated, the standard unit of weight used throughout is the metric ton. The definition "billion" used throughout is one thousand million. Minor discrepancies in totals and percentages are due to rounding.

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CHAPTER 1

RECENT ECONOMIC DEVELOPMENTS IN WESTERN EUROPE

OVER-ALL VIEW

As 1979 progressed, the economic horizon became more cloudy in western Europe and in the whole OECD area. The most important single factor in the faltering economic climate and the worsening of expectations is undoubtedly the latest round of oil price increases. It offset the decline which had taken place between 1974 and 1978 in oil prices relative to the prices of manufactured products; and, probably more important, it ended the lingering hopes that the first round was a once-and-for-all shock which could be gradually absorbed. It also revealed how fragile was the success recorded by most west European market economies in their fight against inflation during recent years, though the cost paid in terms of employment, output and productivity growth has been high. The effect of the new rise in oil prices risks being so serious because little was done in the field of energy conservation between 1974 and 1978 and because the resilience of some west European economies to external shocks appears to be very modest indeed. Inflation started to accelerate in western Europe well before the latest increases in oil prices were reflected in domestic price structures. The rate of acceleration of inflation rates also differed widely among countries: in many of them the external impulse was amplified not only by price-wage spirals but also by policy measures such as increases in indirect taxes and public tariffs.

The effects of the oil price rises of 1979 will be fully felt by the west European economies in 1980; but their impact on output development in 1979 was more limited than generally feared. Indeed, by provoking an acceleration in the purchase plans of households and in the production plans of enterprises, they gave a momentary spur to output. The cyclical recovery which started at the beginning of 1978 thus continued during 1979 with domestic demand rather than exports playing the major supporting role. It was fostered by moderately expansionary policies in some countries in 1978—especially in the larger ones—and a more balanced pattern of foreign accounts. 1978 and 1979 appear as two years of output recovery and in the last quarter of 1979, the industrial production of the west European countries combined was about 9 per cent higher than in the last quarter of 1977. Industrial output stagnated in the first quarter of 1979 (partly because of a hard winter) after the upsurge of the last quarter of 1978, grew fast in the second quarter and remained virtually unchanged in the third quarter. As far as can be judged from incomplete information, it rose again in the last quarter mainly reflecting a decline in the household savings ratio. In the last quarter output continued, rather unexpectedly, to increase also in the United States and there too the major factor was a decline in household savings.

As shown in the following text table, GDP rose by about 3½ per cent for the 13 industrialized west European countries combined between 1978 and 1979 (annual average). After remaining low for several years, fixed investment grew faster than private consumption. However, in historical perspective, economic performance in 1979 was modest: the growth rate of output remained well below previous cyclical upswings as well as the growth rates prevailing before 1973.

Western Europe,[a] percentage yearly changes in volume

	1977	*1978*	*1979*	*Forecast 1980*
Private consumption	2.2	3.1	3.3	2.0
Gross fixed capital formation	1.2	1.6	3.9	3.0
Gross domestic product	2.2	2.8	3.6	1.9

[a] 13 countries: Austria, Belgium, Denmark, Finland, France, the Federal Republic of Germany, Ireland, Italy, the Netherlands, Norway, Sweden, Switzerland and the United Kingdom.

For 1980, aggregation of national forecasts yield a growth rate of 1.9 per cent for the 13 industrialized countries combined.[1] These projections are surrounded by greater uncertainty than usual. On the one hand, the better than generally expected output results for the last quarter of 1979 imply that in a number of countries an output growth in the region of 2 per cent can be achieved between 1979 and 1980 (annual averages) even if output remains flat during 1980. On the other hand, with the exception of some possible lagged increase in enterprise investment, it is difficult to discern other sources of growth. Foreign trade is generally expected to increase much less in 1980 than in 1979. Fiscal and monetary policies are restrictive because of inflation and the widespread objective of reducing public sector deficits. It is also prevailing policy to ensure that the recent oil price increases are passed on fully to final domestic prices. In 1979 a declining savings ratio provided an important stimulus to household consumption in most countries. Paradoxically, if inflation decelerates in 1980—or if inflationary expectations improve—it is quite plausible that the household saving ratio will increase again, thus curbing private consumption. In this event, the expected deterioration in the current balance of payments will fall mainly on the financial situation of enterprises, with an obvious negative impact on their investment plans. Policies adopted in 1974 are often and rightly criticized because of their sheer cyclical nature; because of the absence, in other words, of structural policies especially in the field of energy saving. There is a risk at present of going to the other extreme, of focusing policy attention on a set of medium-term structural targets, which could well become unrealistic if not accompanied by an appropriate short-term policy. The reconciliation of short- and medium-term policy targets—and the assessment of their interplay—promised to remain a central problem in 1980.

---

[1] The growth rate rises to 2.4 per cent excluding the United Kingdom.

In the latest edition of the *Economic Bulletin for Europe* it was estimated that foreign accounts were not likely to impose a severe constraint to growth in 1980 for most industrial west European countries (the situation is quite different for the south European countries). This assessment still seems valid. The current balance of payments of industrial western Europe deteriorated in 1979 under the combined effect of worsening terms of trade and a bigger volume increase for commodity imports than for exports. The size of the deterioration in the trade balance was only to a minor extent offset by the invisible items. The service surplus in western Europe's favour continued to increase but there appears to have been an increase also in the west European deficit for government unilateral transfers. The over-all swing between the two years was about $27 billion, equivalent to 1.1 per cent of GDP, the 1978 surplus being 0.8 per cent and the 1979 deficit 0.3 per cent of GDP. If government unilateral transfers are left out of account (their amount for 1979 is not yet known for all countries), the region would still show a surplus in 1979. The deterioration was less disturbing in terms of individual countries than might be inferred from the aggregate for western Europe. First, there was a reduction in inter-country imbalances. As already noted in the *Economic Bulletin for Europe* (vol. 31, No. 1), a considerable contribution in this direction was provided by the Federal Republic of Germany whose traditional surplus turned into a deficit in 1979, when only Switzerland and Italy had a large surplus. By the same token, however, less room for manoeuvre is left for 1980. Second, the 1979 deterioration was smaller for some countries in terms of national currency than in dollars because of changes in exchange rates; but in 1980 a movement of exchange rates in the same direction as in 1979 appears unlikely.

Western Europe's current balance of payments [a]
(Billion current US dollars)

	1978	*1979*
All countries	18.2	−9.2
Surplus countries [b]	26.2	11.6
Deficit countries	−8.0	−20.8

[a] Unilateral government transfers are included. Figures for 1979 are partly estimated.

[b] For 1978: Finland, France, Federal Republic of Germany, Italy, Switzerland, United Kingdom. For 1979: France, Italy, Switzerland.

There was a sharp acceleration of consumer prices in 1979: for western Europe (13 countries), the average rate rose from 6.2 per cent in the last quarter of 1978 to 9.2 per cent in the last quarter of 1979. There was a similar rate of acceleration in the United States, from 9.0 to 12.7 per cent between the same two quarters. Higher oil and other commodity prices played an important, though by no means in all countries an overwhelming, role in this new acceleration. The prospects for 1980 are not good. The slowdown in productivity growth (itself a function of low output growth) will check the recent improvement in unit labour costs, while the increases in oil and other commodity prices towards the end of 1979 will ensure still higher rates of consumer price increases in the first half of the year. A slowing of the year-on-year rate of inflation might then be expected as the effects of the various "shocks" to consumer prices in 1979 die down; but much will depend on the reaction of wages to the higher inflation rates and on whether there are further increases in oil prices. Even with favourable developments for the last two factors, the average rate of consumer price inflation in western Europe in 1980 is unlikely to be much below 10 per cent for the year as a whole, compared with 7.7 per cent in 1979.

1. OUTPUT, DEMAND AND EMPLOYMENT

(i) Output

In 1979, GDP grew by about 3½ per cent for the 13 industrialized west European countries combined, more or less in line with the aggregate of national projections prepared late in 1978 or at the beginning of 1979. However in the United Kingdom GDP rose by about 1½ per cent compared with a forecast of more than 3 per cent. For the remaining 12 countries the GDP rise was 4 per cent. Domestic demand, including re-stocking, provided the major support to growth. The cyclical positions of western Europe and North America were different in 1979. Notwithstanding fast rising exports in volume terms and the greater than expected resilience of the economy in the face of deflationary policies, GNP in the United States rose by 2.3 per cent compared with 4.4 in 1978 and still higher rates in 1976 and 1977. In Canada, output growth (GDP) decelerated from 4 per cent in 1978 to 2.8 per cent in 1979.

In contrast with 1978 and the recession years 1974 to 1977, industrial production rose faster than GDP in 1979 in western Europe. Its growth rate is estimated at about 5.5 per cent compared with 2 per cent in 1978 and about 1 per cent in the 1974-1977 period (table 1.1). In the latter years, services on the output side and private consumption on the demand side had been the main supports of total output: the sharp increase in exports of manufactured products to the oil exporting countries did not offset the negative impact of stagnating or declining investment in equipment.[2]

The relatively long period of very low rates of industrial expansion has affected the branch pattern of growth. Thus, the food industry continued to reveal the cyclical characteristics of the 1960s, i.e., on average, lower growth rates than total manufacturing, with a better performance in years of low or negative manufacturing growth, as was the case in 1967, 1971, 1975 and 1978. This reflects the more limited exposure of this branch to fluctuations in demand and to foreign competition. In 1979 its growth rate will likely be somewhat lower than total manufacturing growth.[3] The textiles industry followed a different time pattern. The already modest growth rates of the 1960s and early 1970s turned into an absolute decline after 1973 and there was no rise in the growth elasticity with respect to total manufacturing, notwithstanding the relatively better performance of private consumption than of investment. One reason for this is undoubtedly the rapid rise in textile imports from outside the region. In the second half of 1978 a sharp recovery began for textile products which continued in the first half of 1979. The size of this output recovery might have been influenced by protectionist measures but it mainly reflects typical cyclical behaviour. Textiles belong to that group of industries which display larger cyclical swings than total manufacturing and which anticipate by some months cyclical upturns and downturns.

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[2] The development of manufactured exports to the oil-exporting countries in the period 1973 to 1978 is examined in a special note in this chapter (see below section 5).

[3] The pattern of industrial growth in the 1960s for 10 west European countries was examined in some detail in Economic Commission for Europe, *Structure and change in European industry*, United Nations, New York, 1977.

TABLE 1.1

Industrial production by major branches in OECD west European countries combined

(*Percentage changes over corresponding period of previous years*) [a]

	1970-1973 [b]	1974-1977 [b]	1977	1978	1979	1978				1979			
						Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Food, beverages and tobacco	3.9	1.8	1.0	4.8	2.7	2.8	4.8	3.8	4.7	3.7	4.6	3.7	5.4
Textiles, clothing and leather	1.7	−1.1	−2.8	−2.9	5.0	−9.2	−5.7	−2.9	2.0	4.0	6.1	4.0	3.9
Chemicals	7.8	1.7	2.7	2.6	6.7	−1.7	1.7	3.5	7.0	6.0	7.7	7.6	5.7
Basic metals	3.4	−1.8	−1.9	2.8	..	0.9	1.9	1.9	6.9	2.8	5.5	5.6	..
Metal products, machinery and equipment	5.2	1.9	4.8	0.9	1.8	−0.9	0.9	0.9	2.7	1.8	6.4	1.8	4.4
Total manufacturing [c]	5.1	0.7	2.8	0.9	5.4	−0.9	0.9	1.8	3.6	3.6	4.5	4.5	5.3
Mining and quarrying [d]	0.3	4.4	11.2	10.9	13.6	5.9	10.0	7.4	13.2	16.0	15.3	16.8	7.3
Electricity and gas	8.3	4.2	2.8	6.3	5.9	6.4	3.6	5.4	6.3	10.3	6.0	5.1	2.5
Total industrial production [e]	5.2	1.0	3.1	1.7	5.6	−0.1	1.4	2.2	4.1	4.4	4.9	5.0	5.1

Source: OECD, *Indicators of industrial activity*; and *Industrial Production, Historical series*, Revised series 1960-1975 (Supplement No. 1), Paris.

[a] Quarterly data are seasonally adjusted.

[b] Average of annual growth rates.

[c] Including branches not shown separately.

[d] The development in this sector since 1975 has been largely influenced by the extraction of oil and natural gas in Norway and the United Kingdom.

[e] Calculated as weighted average of percentage changes shown for manufacturing, mining and quarrying, and electricity and gas (1970 GDP country weights and exchange rates for 1970-1973; 1975 GDP country weights and exchange rates for 1974-1979).

Basic metals continued to expand in 1979, as in 1978, at a somewhat faster rate than total manufacturing, but while the relatively good performance of 1978 was mainly due to exports, especially to the United States, that of 1979 was mainly due to domestic demand and especially to stockbuilding. The long-term growth elasticity of this branch is considerably lower than unity and there is no reason to expect a change in the coming years: during the recession years 1974 to 1977 there was an actual decline in output. The chemical industry continued to expand during the recession periods at a rate well above total manufacturing, though yearly variations were particularly large: for instance, a decline of about 11 per cent in 1975 was followed by an increase of about 14 per cent in 1976. After a lull in 1977, the chemical industry again started to increase faster than total manufacturing during 1978 and this relative advance widened in 1979 when there was a general tendency to accelerate purchases of petrochemical products because of the expected rise in prices.

Metal-using industries are so differentiated and constitute such a large section of total manufacturing that an over-all index is not very significant. Nevertheless, the apparently disappointing developments in 1979 confirm previous cyclical experience, namely, the time-lag with which this branch follows over-all industrial production. This, in turn, reflects the lag with which enterprise investment follows changes in the other components of demand. For example, metal-using industries rose faster than total industry in 1977 and not in 1976; the latter was a year of recovery from the 1975 trough, while in 1977 industrial production rose only moderately.

In 1979, total manufacturing output for the west European countries combined was about 30 per cent higher than in 1970 and 10 per cent higher than the pre-recession peak in 1974, implying a growth rate of 2.8 per cent per year for the full period 1970 to 1979 and less than 2 per cent for the 1974-1979 period (from 1970 to 1973, the growth rate was higher than 5 per cent). In 1979 textile output had barely reached its pre-recession peak and basic metals were still well below it. Clearly, metal-using industry became somewhat less metal-intensive after 1974, owing to a shift in the composition of demand (weak demand for construction activity and falling demand for ships). Chemicals remained by far the most dynamic branch:

West European countries combined: manufacturing output

(*Index numbers, 1970 = 100*)

	1974 [a]	*1975*	*1979*
Total manufacturing	117	109	128
of which:			
Food [b]	114	114	129
Textiles [c]	108	99	105
Chemicals [d]	129	115	146
Basic metals	117	98	111
Metal-using [e]	117	111	125

Sources: As for table 1.1; national sources and secretariat estimates for 1979.

[a] 1973 for textiles (the peak year for this branch).

[b] Food, beverages and tobacco.

[c] Textiles, clothing, footwear and leather.

[d] Chemicals, plastic and rubber.

[e] Metal products, electrical and non-electrical machinery, transport equipment.

TABLE 1.2

GDP and industrial production

(*Annual percentage change*)

Country	*GDP* 1970-1973	*GDP* 1974-1977	*GDP* 1978	*GDP* 1979	*GDP* 1980 [a]	*Industrial production* [b] 1970-1973	*Industrial production* [b] 1974-1977	*Industrial production* [b] 1978	*Industrial production* [b] 1979
Austria	6.0	3.2	1.5	5.2	2.5	6.9	2.3	2.1	6.0
Belgium	5.4	2.3	2.5	3.0	2.4	4.6	0.7	2.0	4.0
Denmark	3.9	1.9	1.0	3.0	0.1	..	..	..	..
Finland	6.1	1.1	1.4	6.6	4.5	8.2	0.7	4.0	8.0
France	5.6	2.7	3.3	3.1 [c]	2.6	6.0 [d]	1.4 [d]	2.4 [d]	3.9 [e]
Germany, Federal Republic of	4.4	1.6	3.5	4.4	2.5	4.7	1.0	1.7	5.2
Ireland	4.0	2.9	6.1	2.8	3.4	5.4	3.3	9.2	7.5 [e]
Italy	4.2	2.2	2.6	4.9	1.5	5.1	2.2	1.9	6.5
Netherlands	5.0	2.7	2.4	3.0	2.5 [f]	6.7	1.7	0.8	3.1 [e]
Norway	4.0	4.9	3.0	3.7	4.2	5.3	3.7	10.5	7.8
Sweden	2.5	1.0	2.7	4.1	3.6	4.4	−0.7	−0.8	6.6
Switzerland	4.2	−1.2	0.2	0.6	1.5	4.5	−1.2	—	2.0
United Kingdom	3.7	0.4	3.3	1.4	−1.7	2.7	—	3.1	3.7
Canada	5.8	3.1	3.4	2.9	..	6.1	1.6	5.8	4.2
United States	3.5	2.0	4.4	2.3	−0.6	4.1	1.9	5.7	4.2

Sources: For GDP: appendix table; for industrial production: national statistics.

[a] Forecasts.

[b] Data for Austria, the Netherlands, Norway, Sweden, the United Kingdom, Canada and the United States are adjusted for irregularity in the number of working days.

[c] More recent estimates indicate a GDP growth of 3.5 per cent in 1979.

[d] Based on annual index of production.

[e] Based on monthly index of production.

[f] A forecast prepared in January foresees virtually no growth for 1980.

The acceleration in GDP growth between 1978 and 1979 in industrial western Europe as a whole was shared by most countries, but there was a deceleration for Ireland and the United Kingdom. In 1979, total output rose most in Finland (about 6½ per cent) and least in Switzerland (less than 1 per cent), with most countries clustering around 3 to 4 per cent. For 1980, only Finland, Norway and Sweden expect a growth rate higher than 3 per cent, the official projections for most other countries remaining between 1½ to 2½ per cent. A decline is officially forecast for the United Kingdom (table 1.2). Though stocks of finished products declined in most countries during the year, the "industrial content" of GDP was higher in 1979 than in 1978 when the prevailing tendency was for industrial production to rise less than, or at the same rate as, GDP. In 1979, industrial production grew faster than GDP in all countries of the area with the possible exception of Switzerland. One reason for this relative development probably lies in the revival of investment in machinery and equipment or, at least, in a rather less depressed situation for this demand component. In Canada and the United States, the 1979 slowing down was much milder for industrial production than for total output, partly because of a better export performance in manufactured products.

The development of manufacturing production by major branches in 12 west European countries is shown in table 1.3. In 1979, output in basic metal industries rose faster than total manufacturing production in all countries except France and Italy, where there were prolonged work stoppages especially in the first part of the year. The considerably higher growth rate for chemicals than for total manufacturing in western Europe as a whole, also applies to every individual country with the possible exception of Sweden. Inter-country differences are greater for the large branch of metal products and non-electrical machinery. The highest growth rates in 1979 were in Austria, Sweden and Norway, but in the two latter countries there had been a decline in 1978. Output in the electrical engineering branch rose by more than 10 per cent in Sweden and around 5 to 6 per cent in Austria, Belgium, Finland, the Netherlands and the United Kingdom. There was very little growth in the Federal Republic of Germany on account of a weak demand for domestic electrical appliances and rising imports.

Production of transport equipment rose relatively fast in some of the car-producing or car-assembling countries, such as Belgium, France, the Federal Republic of Germany and Sweden; it declined in Italy, because of work stoppages in the first half of the year, and more so in the United Kingdom owing to fast rising imports and flat exports. In Austria, the production of commercial vehicles continued to decline in 1979 from the peak which was reached in 1976 and 1977 in the wake of the investment cycle. Poor results in Finland, the Netherlands and Norway essentially reflect the depressed activity levels in shipbuilding. Textile production rose very fast in 1979 in only two countries, namely Belgium and Italy, essentially because of booming exports to other west European countries. However, some improvement with respect to 1978 was fairly general, Ireland and the United Kingdom being the only two exceptions.

(ii) Cyclical positions

In 1978, destocking and a weak domestic demand especially for fixed investment kept imports down in a number of countries.[4] There was a decline in Austria, Finland, Norway and Sweden; in Denmark, France and Italy, imports grew but less than exports. By contrast, imports rose faster than exports in Ireland because of a booming domestic demand and in the United Kingdom where sterling appreciated and household consumption increased at the exceptional rate of 5.3 per cent. Imports also rose faster than exports in the strong currency countries, namely, the Federal Republic of Germany, the Netherlands and Switzerland. These import and export movements contributed significantly to a more balanced situation in the foreign accounts of the various west European countries and, together with improved terms of trade, weakened the foreign constraint on output growth.

In 1979, restocking and some expansion of domestic demand for private consumption and/or for investment led to a vigorous import growth. Exports rose faster than imports only in Austria, Denmark, the Netherlands and Norway, and the difference was sizeable only for the latter two countries.[5] Final domestic demand (defined as domestic demand excluding changes in stockbuilding) grew faster in 1979 than in 1978 in 9 of the 13 industrialized west European countries. It grew virtually at the same rate in France and less than in 1978 in the Netherlands, Ireland and the United Kingdom. In the latter two countries the deceleration in domestic demand growth was associated with output deceleration, while in the Netherlands it reflected a shift of resources towards exports.

In Austria, Belgium, Finland, Italy, Norway and Sweden, there was an acceleration in the growth rate in 1979 both for household consumption and fixed investment. Austria, Finland, Norway and Sweden lagged behind the prevailing west European cycle and 1978 was characterized by a fall in domestic demand, both for fixed investment and households' consumption. The support to the (admittedly low) output growth came from exports which rose between 8 to 9 per cent in the three Scandinavian countries and by nearly 6 per cent in Austria.[6] Imports fell in all the four countries.

The cyclical recovery in 1979 was particularly vigorous in *Austria* and *Finland* and in both countries exports played a major role. Austria and Finland are the two countries where GDP grew most in 1979 and are also the two countries with the highest growth rates for exports (about 10.5 per cent in Austria and 8 to 9 per cent, for the second consecutive year, in Finland). In both countries a relatively liberal fiscal policy permitted the impulses originating in the foreign sector to work through to domestic demand and the sharp increase in labour productivity—in turn associated with output growth—contributed to the dampening of inflation. A key factor in both countries, but especially in Austria, was the moderation of claims for nominal wage increases, and wage settlements were made easier by the increase in output, labour productivity and real wages. In short, the "virtuous cycle" of low inflation and high growth worked well in these two countries in 1979. Both countries revalued their currencies (by a small margin) to alleviate, if not prevent, imported inflation. The expansion of domestic demand spilled over into imports which in Finland rose considerably faster than exports. Output prospects for 1980 are distinctly less favourable than the actual results in 1979 mainly because of weaker export demand and higher inflation. In Austria fiscal policy should become more restrictive because of the medium-term target of reducing the deficit of the general Government, and GDP is expected to grow by no more than 2.5 per cent. Public expenditure is planned to increase by only 3 per cent in nominal terms, that is half of the expected nominal increase in GDP. Prospects for 1980 appear more favourable for Finland where a GDP growth

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[4] Unless otherwise indicated, the terms "imports" and "exports" denote in this section imports and exports of goods and services at constant prices. The basic figures are shown in the appendix table.

[5] However, the growth of intra-west European trade in manufactured products accelerated in 1979 and it is perhaps worth remembering that a simple comparison between export and import growth rates fails to bring to light the expansionary impulses stemming from a higher growth rate for both exports and for imports. This is so because, in the short run at least, there is not perfect substitutability between output for exports and for domestic demand, even for manufactured products. Furthermore, owing to the high degree of economic integration of western Europe, each country's exports call for imports of intermediate products, component parts and capital goods. This second factor probably played an important role in fostering commodity exports from the Federal Republic of Germany in 1979.

[6] Finland is the only country of this group where private consumption rose (by 1.2 per cent only) in 1978.

TABLE 1.3

Manufacturing industry: output of selected industrial branches

(*Percentage change over corresponding period of previous year*)

Country	*Total manufacturing* [a]	*Iron and steel basic industries* [b]	*Chemical industry*	*Mechanical engineering* [c]	*Electrical engineering*	*Transport equipment*	*Textiles*	*Food, beverages and tobacco* [d]
Austria								
1978	2.2	7.7	5.5	2.1	5.8	8.3	−4.0	1.6
1979 Q1-3	6.3	8.8	7.7	10.1	4.1	−2.6	1.8	4.0
Belgium								
1978	2.4	12.6	3.3	0.3	4.9	8.7	−4.4	0.8
1979 Q1-3	5.7	13.9	10.1	1.6	5.4	11.3	9.7	5.6
Finland								
1978	2.4	15.6	6.9	−3.3	−3.9	−6.3	−6.1	4.0
1979 Q1-3	8.7	9.3	13.3	6.2	5.2	1.7	6.7	3.4
France								
1978	2.4	4.0	4.3	2.3	2.4	0.2	−2.8	4.2
1979 Q1-3	4.2	−0.2	8.7	—	1.2	3.8	0.6	0.8
Germany, Fed. Rep. of								
1978	1.8	4.7	5.1	0.2	1.1	1.5	−1.1	3.4
1979 Q1-3	5.4	6.9	5.8	4.0	0.5	5.7	3.5	3.7
Ireland [e]								
1978	8.8	..	26.8	4.4	..	..	16.0	7.4
1979 Q1-2	7.4	..	17.1	6.1	..	..	3.6	6.0
Italy								
1978	1.7	−4.2	9.5	−3.0	1.9	5.4	−4.8	5.7
1979 Q1-3	5.6	0.4	5.4	—	−1.6	−0.9	14.1	6.7
Netherlands								
1978	1.7	7.5	4.0	−2.6	4.0	−4.0	−6.2	4.1
1979 Q1-3	2.8	5.6	7.7	−2.9	6.5	−1.1	..	4.2
Norway								
1978	−2.0	1.2	−1.9	−2.1	2.0	−4.3	−11.6	−0.9
1979 Q1-3	2.6	21.6	18.0	9.4	−6.1	−7.9	0.2	1.8
Sweden								
1978	−0.7	1.0	6.9	−3.0	−2.4	−4.3	−3.1	−1.4
1979 Q1-3	7.6	11.0	6.2	13.2	12.4	6.0	4.1	2.6
Switzerland								
1978	1.4	..	3.5	5.7	..	..	—	—
1979 Q1-3	0.9	..	3.0	2.0	..	..	2.5	1.2
United Kingdom								
1978	0.9	−1.4	1.2	−0.5	5.3	−3.1	−1.6	2.0
1979 Q1-3	0.3	5.3	3.1	−1.3	5.4	−5.1	−1.6	0.1

Sources: Derived from national statistics.

Note: Data are not adjusted for seasonal variation, but index numbers for Austria, Ireland, the Federal Republic of Germany, the Netherlands, Norway, Sweden and the United Kingdom have been adjusted for changes in the number of working days. The coverage of series used to compile the figures above varies between countries. Major deviations are given below.

[a] France: industrial production. Belgium: including electricity and water.

[b] The Netherlands: basic metal industry. 1979: first half only.

[c] France: 1979: first half only. Data are based on the quarterly index unadjusted for changes in the number of working days. Ireland: metal and engineering (including vehicles). The Netherlands: metal products and machinery. 1979: first two quarters only. Switzerland: machinery and apparatus (including precision instruments except watch manufacturing and jewellery), transport equipment and musical instruments.

[d] France: *Industries agricoles et alimentaires*; 1979: first two quarters only. Data are not adjusted for changes in the number of working days.

[e] 1979: first two quarters only.

of 4.5 per cent is expected. This relatively high rate mainly reflects a statistical "carry-over" from 1979, but it is partly due to the lagged development of enterprise investment which is projected to increase by nearly 10 per cent in 1980 compared with 4.7 per cent in 1979. Cyclical swings in *Sweden* were broadly similar to those in Austria and Finland. There had been a vigorous export expansion in 1978 following the 1977 devaluation and a squeeze on domestic demand. Policies became more expansionary during 1978 and remained so until mid-1979. General Government financial deficit in 1979 rose to 3.7 per cent of GDP compared with 1.2 per cent in 1978. Public consumption and public investment combined rose by about 5 per cent. Enterprise investment was encouraged by increased profit margins and higher liquidity; and, as in many other countries, household consumption rose more than real disposable income as the savings ratio fell. However, the foreign account developed less favourably than either in Austria or Finland, and by mid-1979 credit policy was tightened for both commercial and consumer credit. Fiscal policy will be mildly restrictive in 1980 so as to reduce the growth of domestic consumption and imports, but GDP is still expected to increase by about 3.5 per cent mainly because of the lagged development of enterprise investment.

Economic developments in *Norway* in 1979 were still affected by the restrictive economic policy which was initiated late in 1977 and was continued in the first months of 1978. Output had continued to increase at an average rate of more than 5 per cent in the 1974-1977 period. The imbalances, in terms of inflation and the foreign account, led to the adoption of a comprehensive package of restrictive measures. In 1979 the process of gradual adjustment continued. Fixed capital formation continued to decline but at a much reduced rate than in the previous year; private consumption rose by an estimated 0.5 per cent following a decline of 3.8 per cent in 1978 and there was some re-stocking. GDP excluding oil and shipping activities rose by an estimated 2 per cent compared with 0.7 per cent in 1978. Exports continued to provide a major stimulus to output as they rose by 6 per cent, while imports increased by only 1 per cent. The prices and incomes freeze permitted a sharp slowing down of the inflation rate and, with the slowing down of output, there was an improvement in foreign accounts. For 1980, GDP is expected to increase by 2.3 per cent excluding oil and shipping activities and by 4.2 per cent including them. A sharp upturn is expected for investment in manufacturing.

In *Belgium*, the output revival started in the second quarter of 1978. It was mainly the consequence of a lively export demand coming from neighbouring countries and this spread over into domestic demand in 1979. However, the upswing was of moderate dimensions and did not prevent a further increase in unemployment. For 1980, GDP should expand by 2.5 per cent; government policy, mainly operating in a medium-term perspective is committed to reducing the growth of public expenditure, to improving the competitiveness of Belgian exports (which has declined in recent years), and to solving a number of industrial structural problems which are particularly acute in steel and textiles. In *Italy*, the 1979 upswing was somewhat stronger. Fiscal policy took a more expansionary slant in 1978 when the deficit of the general Government (current and capital accounts combined) amounted to 11 per cent of GDP compared with 8.5 per cent in 1977. Booming exports contributed significantly to output growth but households' consumption was held back by a higher savings ratio. In 1979, the public sector continued to play an expansionary role and households' consumption rose more than in 1978 mainly because of a fall in the savings ratio. Export volume for commodities continued to increase at a fast rate, and a more favourable liquidity position for enterprises as well as a higher degree of capacity utilization led to a recovery of investment in machinery and equipment. Output and household consumption were unexpectedly vigorous in the closing months of the year (largely because of anticipatory buying) and for the year as a whole GDP growth was around 5 per cent compared with an estimate prepared

Table 1.4

Domestic demand, including and excluding stockbuilding

(*Annual percentage change, in volume*)

	Including stockbuilding					*Excluding stockbuilding*				
Country	*1976*	*1977*	*1978*	*1979*	*1980* [a]	*1976*	*1977*	*1978*	*1979*	*1980* [a]
Austria	9.3	5.2	−1.9	5.0	2.3	4.5	5.7	−2.6	4.7	2.7
Belgium	5.6	1.6	2.6	3.0	2.5	4.7	1.7	2.9	..	..
Denmark	11.5	−0.5	0.3	3.0	−1.2	9.1	−0.5	0.4	2.4	−0.6
Finland	−3.4	−3.0	−1.8	8.6	5.0	−1.2	−1.5	−0.9	4.5	4.8
France	6.6	1.5	3.0	3.2	2.2	4.9	1.6	3.2	2.8	2.6
Germany, Fed. Rep. of	5.0	2.6	3.9	5.5	2.4	3.4	2.9	4.1	4.2	3.2
Ireland	4.9	5.9	8.1	8.4	−2.6	2.8	4.8	9.2	7.5	−1.8
Italy	6.1	0.6	1.7	5.8	1.6	3.1	1.9	2.4	4.6	2.1
Netherlands	4.9	5.3	3.9	1.4	2.0	3.6	5.9	3.3	2.0	1.2
Norway	7.6	3.5	−7.1	1.4	2.5	7.6	5.5	−5.5	−1.9	2.9
Sweden	2.2	−3.7	−1.7	5.4	3.9	3.1	−0.4	−0.6	3.7	2.5
Switzerland	−0.3	2.2	3.1	2.5	2.2	−1.8	2.4	2.6	2.8	2.2
United Kingdom	2.3	−0.5	3.8	4.2	−2.4	0.5	−1.1	3.8	2.0	−0.1

Sources: As for appendix table. [a] Projections.

in September of 4.3 per cent. Policy orientation for 1980 is still uncertain. The Government authorities had planned an expansionary policy so as to raise the GDP growth rate to about 2.5 per cent which otherwise was estimated to increase by only 1.5 per cent; but the implementation of this policy is uncertain. However, the upswing in the last quarter of 1979 would lead to an output increase of about 2.5 per cent between 1979 and 1980 (annual average) even on the assumption of a flat output during 1980.

In France, the Federal Republic of Germany and Switzerland, there was an acceleration in 1979 for fixed investment but not for household consumption. In *France*, the official estimates released at the end of September put the growth rate of GDP at 3.1 per cent, very much of the same order as that in 1978.[7] Total final domestic demand also rose virtually at the same rate in both years and household consumption continued to be more dynamic than fixed investment. Nevertheless, the difference between the growth rates of the two demand components narrowed in 1979. Fixed investment continued to grow less than private consumption and less than GDP, but there was some improvement with respect to 1978 both for public and enterprise investment as the financial situation of enterprises improved. Investment in dwellings continued to decline, if only slightly. On the other hand, the development of households' real income was hampered by an increase in social security contributions, and the growth of private consumption by 3.3 per cent was made possible by a reduction in the savings ratio. A number of measures were introduced by the Government in the second half of the year in favour of low-income families and of residential construction. Fiscal and monetary policies remained on the whole restrictive and the financial deficit of the general Government remained at about 2 per cent of GDP, very much as in 1978, the over-riding government aim being to reduce inflation. Prospects for 1980 are clouded by an unfavourable international environment but some further acceleration is expected for fixed investment.

In 1978 in France, the Federal Republic of Germany and the United Kingdom, domestic demand had increased faster than in the remaining west European countries taken together; and in the Federal Republic and the United Kingdom imports had outstripped export growth, thus providing a larger outlet for other west European countries' exports and contributing to the re-adjustment of the foreign accounts of the region which progressed further in 1979. In 1979 domestic demand rose by 5.5 per cent in the *Federal Republic of Germany* compared with 3.9 per cent in 1978 but imports grew considerably faster reflecting the effect of the DM appreciation. The expansion of final domestic demand in 1979 was largely due to the reflationary fiscal measures adopted in 1978 and which came into effect on 1 January 1979.

Net borrowing of the general Government has been estimated at 2.9 per cent of GDP, compared with 2.8 per cent in 1978 and 2.6 per cent in 1977. However, there was no corresponding increase in the real disposable income of households, notwithstanding an unusually large increase in employment, as rising costs were passed on to final prices; household consumption in fact rose less than in 1978 owing to a higher propensity to save. The most dynamic components of domestic demand in 1979 were enterprise investments in stocks and in fixed assets, particularly in machinery and transport equipment which rose by more than 10 per cent (compared with a rise about 8 per cent in 1978). Official forecasts for 1980, prepared in January, put GDP growth for the year at 2.5 to 3 per cent, while forecasts prepared by private research institutes show a growth rate around 2 per cent essentially because of a less optimistic assessment on economic conditions abroad. The priority of economic policy is the reduction of inflationary pressures, by means of restrictive fiscal and monetary policies. No additional fiscal support to economic activity is planned as the Government is trying to implement its programme of fiscal consolidation; fiscal revenues are planned to rise only slightly faster than expenditure (6.5 per cent against 6 per cent). However, on a cash basis, public expenditure could increase somewhat faster than on an appropriations basis as funds earmarked for fiscal stimuli were not spent in 1979 in view of the strength of market forces. In *Switzerland* investment in machinery and equipment continued to increase at 7 to 8 per cent per year, as in 1978, and furthermore there was a sizeable acceleration in construction investment, mainly in residential dwellings. Households' consumption rose by only 1.5 per cent (compared with 2.2 per cent in 1978) and no measures were taken to boost demand largely because there is virtually full employment in the country.

In *Denmark* the acceleration of output growth (3 per cent compared with 1 per cent in 1978) was mainly due to public consumption (which rose by 6 per cent), household consumption and exports, which benefited from expanding demand in the Federal Republic of Germany and Sweden (the largest markets for Danish industrial exports). The very large increase in public consumption essentially reflects a similarly large increase in public employment which was carried through mainly to reduce unemployment. Domestic demand rose only moderately because of stringent policies, which in turn were intended to cope with rapid inflation and a large widening in the balance-of-payments deficit.[8] Household consumption rose by 2 per cent following a decline of 1 per cent in 1978, while public and private investment remained flat. High interest rates, raised to encourage foreign borrowing, have helped to depress investment in dwellings, which declined 4 per cent, while there was some expansion of investment in equipment. In December an economic strategy was elaborated by the Government covering the period to 1983 and aiming at drastic changes in policy orientation. Among other things, real wages would fall by 5 per cent as a consequence of a change in the country's present system for wage–cost-of-living adjustment. However, in the face of union opposition, this programme is now being revised and in 1980 wages are likely to rise by much more than the government had originally hoped. This in turn has raised expectations of a new fiscal squeeze. GDP should show no increase at all in 1980 and domestic demand should fall both for investment and private consumption.

In contrast to most other west European countries there was a vigorous investment boom in *the Netherlands* in 1977, the expansion exceeding 10 per cent; the growth of household consumption was also larger than in most other west European countries. Preoccupations about inflation and declining competitiveness led the Government to adopt more restrictive policies in order to induce a shift of resources towards exports. Changes in the relative strength of the demand components became apparent during 1978 and continued in 1979 when foreign demand provided the main support to output growth, with exports rising by 7 per cent and imports by 4.5 per cent. Household consumption rose by only 2.5 per cent compared with 3.7 per cent in 1978, partly because of the measures introduced in May to curtail consumer credit. The forecasts for 1980, prepared in January, foresee hardly any increase in GDP. In order to alleviate the negative effect of the worsening balance of payments on enterprises, the Government deficit is planned to increase somewhat from the 4.7 per cent of GDP in 1979, but Government authorities are committed not to exceed the ceiling of 5.5. per cent of GDP in 1980.

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[7] More recent estimates indicate a GDP growth of 3.5 per cent in 1979. The revision particularly affects fixed investment, exports and imports, which grew considerably faster than the rates estimated in September 1979.

[8] In assessing cyclical developments in Denmark, it should be borne in mind that in this country unemployment and foreign imbalance problems are traditionally more acute than in many other industrialized west European countries.

As noted already, Ireland and the United Kingdom are the only two countries in western Europe where GDP growth slowed down considerably between 1978 and 1979. Still, in *Ireland*, final domestic demand grew in 1979 by more than 7 per cent—with fixed capital formation increasing by 14 per cent—roughly the same rate as in 1978. However, the growth rate of private consumption nearly halved. A greater proportion of the increase in final demand in 1979 was met from imports, which rose by almost 15 per cent (partly as a consequence of buoyant fixed investment), so that GDP growth was lower than in the two previous years. At the same time, exports of goods and services increased by under 5 per cent, reflecting a decline in agricultural exports, due in part to the depletion of stocks in 1978. This, together with the deterioration in the terms of trade, resulted in a large rise in the external deficit: the deficit on the current account in 1979 is estimated to have been equivalent to about 11 per cent of GNP. Monetary policy was therefore tightened during the year, with a very strong rise in interest rates. An attempt was made in the February 1980 budget to bring fiscal policy into line with the monetary objectives: large increases were announced in indirect taxes, especially on petrol and alcoholic beverages, and in excise duties. This marks a decisive break with the expansionary policies of 1977 and 1978.

The *United Kingdom*'s economic development in 1979 was characterized by a continuation of the boom in household consumption, fast rising imports, sluggish exports, and a decline in fixed domestic capital formation. Household consumption rose by nearly 4 per cent compared with 3.3 per cent in western Europe as a whole. The decline in total fixed investment was due to investment in dwellings and to public investment, which more than offset a small increase in private enterprise investment. Industrial disputes explain only a small part of the unsatisfactory output growth in the year as a whole, though the wage–wage spiral has been contributing significantly to the acceleration in inflation. Since the second half of 1976, the most important policy instrument in the United Kingdom has been the monetary target, and the predominance given to monetary policy has become even more pronounced in 1979, when the present government took office. In the June 1979 budget, it was stated that the government was committed to progressive reductions in the rate of growth of money supply. Fiscal policy is to be used as a policy instrument mainly in a medium-term perspective. The Government reduced income taxes, very considerably at the higher income levels, and increased value-added tax as part of its policy of shifting the tax burden from direct to indirect taxes. The cut in income tax was seen as a means of strengthening incentives rather than an attempt to implement a tax-oriented incomes policy. A development of great potential significance was the removal of all remaining exchange-control restrictions in October 1979. Nevertheless, the upward pressure on the sterling exchange rate continued, in spite of the relatively high inflation rate and rapidly growing current account deficit. The official forecasts for 1980, made in November 1979, envisage a 2 per cent decline in output, but precise policy orientations—including the planned level of the public sector borrowing requirement—will only be known at the next budget presentation.

(iii) Demand patterns

The prevailing demand pattern may be summarized as follows:

(*a*) 1979 was characterized by *re-stocking*. Total domestic demand including changes in stockbuilding rose faster than final domestic demand in 11 out of 13 countries. Stockbuilding was particularly heavy in Finland, Norway, Sweden and the United Kingdom where it accounted for one-third or more of the increase in the total domestic expenditure. Though it is difficult to assess accurately changes in stockbuilding as well as their time profile, it would appear from such fragmentary information as is available that restocking had already started in most countries during the second half of 1978 and proceeded throughout most of 1979, when the increase in total stocks was associated with a decline in the stocks of finished manufactured products. The causal link seems to go from the latter to the former. As demand strengthened, stocks of finished products declined and, at the same time or after a short time-lag, enterprises started to replenish their stocks of raw and semi-processed materials. In 1979 stockbuilding decelerated only in Switzerland where there had been heavy stockbuilding in 1978. In 1980, the effect of stockbuilding on total domestic demand has been forecast as neutral or slightly negative by most countries. It is expected to exert a positive influence only in Finland and Sweden. This probably reflects simply the high rate at which stockbuilding proceeded during 1979 rather than a continuation of this tendency during 1980.

(*b*) In 1974, that is after the first round of oil price increases, industrial western Europe's current *balance of payments* plunged into a deficit of $13.5 billion, equivalent to 1 per cent of that year's GDP. There was a gradual improvement in the following years and, as mentioned in the introduction to this chapter, in 1978 the region had a surplus of $18 billion, or 0.8 per cent of GDP. After oil price increases in 1979, western Europe's current balance went again into deficit; this deficit, however, is estimated at no more than 0.3 per cent of GDP (table 1.5). The current balance of payments worsened in 11 out of 13 countries, the exceptions being the Netherlands and Norway. As noted above, there was a remarkable shift of resources from domestic demand to exports in the Netherlands in 1979. In Norway, the improvement reflected developments in North Sea oil extraction. The highest deficits in terms of GDP were in Ireland and Denmark

TABLE 1.5

Current balance of payments, 1978 and 1979

Country	1978				1979	
	Including Government transfers		*Excluding Government transfers*		*Including Government transfers*	
	Million US dollars	*Per cent of GDP*[a]	*Million US dollars*	*Per cent of GDP*[a]	*Million US dollars*	*Per cent of GDP*[a]
Austria	−1 425	−2.5	−1 413	−2.4	−1 940	−2.8
Belgium-Luxembourg	−570	−0.6	−130	−0.1	−2 430	−2.1
Denmark	−1 476	−2.6	−1 992	−3.6	−2 660	−4.1
Finland	615	1.8	636	1.9	−280	−0.7
France	3 795	0.8	5 248	1.1	2 350	0.4
Germany, Federal Republic of	8 980	1.4	13 380	2.1	−4 365	−0.6
Ireland	−291	−2.4	−933	−7.7	−1 640	−10.8
Italy	6 395	2.5	9 231	3.5	5 415	1.7
Netherlands	−1 164	−0.9	−654	−0.5	0	0
Norway	−2 077	−5.2	−1 740	−4.4	−985	−2.1
Sweden	−950	−1.1	49	0.1	−1 165	−1.1
Switzerland	4 403	5.2	4 739	5.6	3 800	4.1
United Kingdom	1 988	0.6	5 252	1.7	−5 305	−1.2
Western Europe	18 223	0.8	31 673	1.4	−9 205	−0.3
Canada	−4 634	−2.2	−4 429	−2.1	−4 700	−2.1
United States	−13 520	−0.6	−8 860	−0.4	−2 500	−0.1
Japan	17 590	1.8	18 000	1.8	−6 000	−0.6

Sources: IMF, *International Financial Statistics*, February 1980; National statistics and secretariat estimates.

[a] Or GNP.

Only in France, Italy and Switzerland was there a surplus, that of Switzerland continuing to be quite large in terms of GDP.

Western Europe's current account deterioration in 1979 originated entirely in the commodity field and was due partly to falling terms of trade and partly to higher volume imports, in turn associated with restocking. On the service side, there was—as far as can be inferred from a comparison between trade and current account data—a strengthening of the already large surplus in western Europe's favour. The present relative smallness of western Europe's current deficit is partly due to a different distribution of the over-all current surplus of the oil-exporting countries. In 1974, North America and Japan taken together had a deficit equal to 0.2 per cent of their combined GDP, but of 0.4 per cent in 1979. A more disturbing feature is the deficit of the developing oil-importing countries which in 1979 took up more than 70 per cent of the total current surplus of the oil-exporting countries (excluding government unilateral transfers). For 1980, the expected deterioration for the current balance of payments is large for the developed market economies as well as for the non-oil-exporting developing countries.[9]

(*c*) Another cyclical feature of 1979 was some revival of *fixed investment*; this occurred in nine out of the 13 countries, the exceptions being Denmark, the Netherlands, Norway and the United Kingdom. In these four countries, as briefly indicated in the foregoing country reviews, stringent policies adversely affected this demand component, which is much more volatile than household consumption. Fixed investment remained virtually at the 1978 level in Denmark and the Netherlands, and fell in the United Kingdom and Norway, in the latter for the second consecutive year. For those countries where investment rose, the increase ranged from some 16 per cent in Ireland to about 3 per cent in Belgium. Apart from Ireland (which enjoyed an exceptional boom in 1977 and 1978), a vigorous investment expansion seems to be under way only in the Federal Republic of Germany. In this country the decline in 1974-1977 had been no more than 1½ per cent per year and there had already been an increase of 6.3 per cent in 1978. One reason for this expansion might be that the revaluation of the Deutsche Mark has compelled industries to speed up the restructuring process, but an additional factor might be found in the poor investment performance of 1970-1973 (see below). Fixed investment also rose fast in 1979 in Sweden and Switzerland (between 6.5 and 7.5 per cent) but in both countries the 1979 revival was not enough to compensate for the decline in previous years. In Austria, Belgium, Finland, France and Italy, total domestic fixed capital formation rose in 1979 at a lower rate than total GDP, and in Finland, the 1979 increase is considerably smaller than the 1978 decline. On the whole, the long awaited revival of fixed investment in 1979 was very modest indeed, with the exception of Ireland and the Federal Republic of Germany.

There were different developments in the major investment categories, public investment being generally the weakest component and investment in equipment the most dynamic one. Though country information is incomplete, it would appear that public investment rose sizeably in 1979 only in the Federal Republic of Germany and Sweden as a result of deliberate expansionary policies (table 1.6). Elsewhere, there was either a decline or an increase of only very small proportions. The weakness of public investment in 1979, as in 1977 and 1978, reflects cautious fiscal policies and a relative shift of Government resources towards current and capital transfers, including unemployment benefits and financial help to enterprises. Residential construction is a second investment category which displayed very little dynamism in 1979 (again, with a few exceptions). For a number of structural and policy reasons frequently mentioned in past *Surveys* and in contrast to previous business cycles, investment in dwellings acted pro-cyclically during the 1974-1977 recession and there are no indications of a general upswing in the immediate future. The most dynamic investment component in 1979 was enterprise investment especially in machinery and equipment. There was already a tendency for this to grow somewhat faster than the total of other investment categories in the 1960s and early 1970s; and the difference widened in the recession when rationalization investment became relatively more important than investment aimed at increasing capacity. However, yearly variations of investment in equipment are particularly large and the 1979 expansion is in many cases just the mirror image of the 1978 decline (particularly in Austria and Finland).

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[9] For a recent estimate for 1980 and 1981, see UNCTAD, *World Economic Outlook, 1980-1981*, United Nations, Geneva, March 1980.

Taking a longer-term view, the weakness of investment demand appears as a distinct feature of the 1970s. In the 1950s, total fixed capital formation had increased at an extremely fast rate in western Europe, by some 8 per cent per year, or double the rate for private consumption. The growth rate slowed down to about 5.5 per cent a year in the 1960s, while private consumption continued to increase at virtually the same rate as in the 1950s. In the early 1970s—and already before the outbreak of the recession—the weakness of investment demand was further accentuated. Table 1.7 retraces the development of fixed investment and output in manufacturing from 1970 to 1979 (or 1978) for a number of west European countries. In 1979, fixed investment in manufacturing was lower than in 1970 in Belgium, Finland, the Federal Republic of Germany, Italy, the Netherlands, Sweden and the United Kingdom, the difference being about 25 per cent in Belgium, 15 per cent in Finland, Italy and Sweden and less than 10 per cent in the Federal Republic of Germany, the Netherlands and the United Kingdom. In contrast, it was 15 per cent higher in Austria and 5 to 10 per cent in France and Norway (as in the United States). In some countries and particularly in the Federal Republic of Germany, the Netherlands and the United Kingdom, the 1970-1973 period had already been characterized by an actual investment decline which was followed by some revival in the second half of the decade. The Scandinavian countries generally followed a different time-pattern in keeping with their own over-all cyclical positions. Investments were still expanding in the first half of the decade, but declined in the second. In all countries of the region manufacturing output was higher at the end than at the beginning of the decade (by 35 per cent or more in Austria, Belgium, Denmark, Finland, France, Ireland and Italy; by 10 to 30 per cent in the Federal Republic of Germany and the Netherlands; and about 15 per cent or less in the other countries). The difference between the development of output and investment is striking.

As a consequence of this divergent behaviour for manufacturing investment and output in the 1970s, the investment ratio declined everywhere from the high level

TABLE 1.6

Public and private enterprise investment

(*Annual percentage change, in volume*)

Country and year	*Public investment* [a]	*Private enterprise investment* [b] *Total*	*Private enterprise investment* [b] *Manufacturing*
Denmark			
1977	..	2.1	..
1978	..	1.1	..
1979	..	0.9	..
1980	..	−2.0	..
Finland			
1977	−0.1	−9.3	−16.8
1978	2.2	−15.6	−18.7
1979 [c]	—	7.0	17.0
1980 [c]	0.5	9.5	10.0
France [c, d]			
1977	−0.6	−1.2	−8.3
1978	−0.7	1.5	−1.3
1979	1.8	2.8	..
1980	2.2	3.2	..
Germany, Fed. Rep. of			
1977	−3.3	7.2	6.7
1978	7.7	6.4	7.0
1979	5.9	9.6	9.0
1980	1.2	6.0	6.0
Italy [c, d]			
1977	−8.3	0.9	−0.8
1978	−3.6	−0.9	−3.8
1979	2.9	6.1	10.5
Netherlands [e]			
1977	−12.9	18.2	14.9
1978	−3.6	5.2	2.4
1979	−1.0	—	..
1980	3.5	—	..
Norway [f]			
1977	31.2	−10.1	18.1
1978	−6.7	−24.9	−14.6
1979	−5.9	−16.2	−21.3
1980 [d, g]	−2.0	3.6	20.0
Sweden			
1977	−0.1	−5.0	−18.5
1978	−0.4	−19.5	−19.7
1979 [e]	4.0	9.3	1.9
1980 [e]	2.8	5.5	11.7
United Kingdom [h]			
1977	−16.1	9.7	14.5
1978	−8.0	8.3	11.4
1979	−3.9	1.9	−0.6
1980	−3.1	−3.0	−6.5

Sources: As for appendix table; for the United Kingdom: *National Institute Economic Review*, November 1979.

[a] Public administration and public enterprises, unless otherwise stated.

[b] Mainly private enterprises, excluding dwellings.

[c] "Enterprise investment in manufacturing" refers to "industry".

[d] "Public investment" refers to "public administration" only. Public enterprises are included with private enterprises.

[e] "Enterprise investment in manufacturing" refers to "industry and construction".

[f] "Enterprise investment" includes ships and oil exploration (the percentage changes excluding ships and oil exploration are: 1977, −7.9; 1978, 0.2; 1979, −6.2; 1980, 4.7).

[g] "Enterprise investment in manufacturing" includes mining.

[h] "Public investment" includes iron and steel.

TABLE 1.7

Output and investment in manufacturing industry

(Volume index numbers, 1970 = 100)

Country	Gross value added							Gross domestic fixed capital formation						
	1973	*1974*	*1975*	*1976*	*1977*	*1978*	*1979* [a]	*1973*	*1974*	*1975*	*1976*	*1977*	*1978*	*1979* [a]
Austria [b]	120.7	126.4	116.7	126.9	130.7	132.9	140.9	125.0	122.3	97.2	101.7	120.4	116.8	114.2
Belgium	122.8	128.1	119.9	128.9	128.6	130.2	137.4	96.8	116.4	102.9	86.6	72.0	72.1	..
Denmark	112.5	114.5	108.7	117.0	118.1 [c]	121.3 [c]	125.5 [c]	..	..	..	..	..	..	..
Finland	121.1	127.2	121.9	123.8	122.6	125.7	135.8	91.9	121.2	124.0	109.3	90.9	73.9	86.5
France [d]	120.7	124.7	122.2	131.3	135.4	139.2	144.8	112.1	110.5	103.7	113.0	103.6*	102.4*	..
Germany, Federal Republic of	110.6	110.9	105.1	112.7	116.1	118.1	124.0	84.6	76.5	70.2	73.5	78.4	83.9	91.5
Ireland [e]	121.9	123.7	115.4	127.6	137.5	149.7	160.2	..	..	..	..	..	..	..
Italy	115.9 [d]	122.1 [d]	111.0 [d]	124.6 [d]	126.7 [d]	129.4 [d]	137.7 [d]	109.3 [f]	116.1 [f]	90.6 [f]	90.0 [f]	89.3 [f]	85.0 [f]	..
Netherlands	119.0 [b]	125.0 [b]	119.0 [b]	127.0 [b]	127.0 [b]	127.0 [b]	131.0 [b]	92.0 [f]	97.0 [f]	88.7 [f]	80.1 [f]	92.0 [f]	94.3 [f]	..
Norway	114.4	119.6	116.1	116.6	115.1	112.5	115.1	102.6	134.6	142.3	134.0	158.3	135.2	106.4
Sweden	110.7	115.9	113.2	111.9	105.0	105.4	113.3	114.1	127.7	129.7	129.5	105.5	84.7	86.3
Switzerland [e]	111.0	112.0	96.0	97.0	101.0	103.0	104.0	..	..	..	..	..	..	..
United Kingdom	110.6	108.7	102.0	103.5	105.0	105.7	106.2	83.9	91.5	84.3	80.0	87.1	92.2	91.6
United States	120.1	112.0	106.3	116.3	123.7	131.1	136.3	105.8	105.0	91.6	94.8	103.4	..	..

Sources: National statistics.

[a] Provisional.

[b] Mining and manufacturing.

[c] Based on volume of sales turnover in manufacturing.

[d] Industry (mining, manufacturing, utilities).

[e] Short-term indices of manufacturing production.

[f] Industry and construction.

reached at the end of the 1960s.[10] Present investment ratios—at factor cost and 1970 prices—range from an estimated 22 per cent in Norway to 18 per cent in France, to about 14-16 per cent in Finland, Italy, the Netherlands, Sweden, Canada and the United States, and to about 12 per cent in Belgium, the Federal Republic of Germany and the United Kingdom. For most countries, they are similar to those prevailing towards the end of the 1950s. On the assumption that past marginal capital-output ratios still hold (and there is no reason why this should not be so), the present investment ratios in western Europe would perhaps allow for an output increase of about 5 per cent or slightly less. True, it is likely that a larger share of gross fixed investment is needed at present than in the past for replacement purposes, but labour productivity growth can still benefit in most countries from margins of unused capacity. If the necessity of a lasting recovery in fixed investment is implied in what has been said here, it would also appear that the decline in manufacturing investment which took place in the 1970s, however serious, has not yet imposed an intractable restraint on what may be judged a satisfactory growth rate of manufacturing output. In developed market economies the manufacturing sector is moving towards skilled labour and high research-intensive production lines rather than towards high capital-intensive branches, and a proper allocation of investment—so as to take account of changing comparative advantages—is more important than the total itself. In the coming years the major investment effort seems to be required in the energy field.[11]

(*d*) In 1979, *household consumption* rose by 3.3 per cent in western Europe as a whole—compared with 3.1 per cent in 1978—the individual growth rates ranging from 5 per cent in Austria to 0.5 per cent in Norway. In comparison with 1978, there was an acceleration (or a shift from decline to increase) in seven out of 13 countries (that is, Austria, Belgium, Denmark, Finland, Italy, Norway and Sweden) and a deceleration of minor proportions in the remaining six.

It is unfortunately not possible to show for each country the role played by primary income, Government net transfers and changes in savings in affecting private consumption (the information collected for some countries is shown in table 1.8). However, the general impression is that in 1979 the change in primary real income was the major factor affecting changes in private consumption, although this was supported by a decline in the savings ratio in a number of countries. The prevailing tendency in western Europe was for the savings ratio to decline between 1978 and 1979 (annual averages): probably the tendency was slightly upward during 1978 and downward during 1979. As far as can be judged from fragmentary information, the savings ratio appears to have declined sharply in most countries in the last quarter of 1979 when inflationary expectations worsened. This behaviour fits closely with previous household reactions to price changes, the propensity to save normally increasing when prospects for inflation improve (as was the case in 1978) and declining when prospects for inflation worsen (as in 1979). In 1979 the household savings ratio appears to have increased in only a few countries (for example, in Finland, the United Kingdom and, probably, Austria) where real disposable income rose fast. Changes in real disposable income are another factor affecting households' savings propensity, as swings in private consumption are typically less large than changes in real disposable income. This "income effect" can overshadow the "inflation effect" and this might have been the case for the United Kingdom in 1979, when real disposable income rose by about 5.5 per cent following a 7 per cent rise in 1978.

TABLE 1.8

Household income and savings

A = Primary income: annual percentage increase
B = Disposable income: annual percentage increase
C = Real disposable income: annual percentage increase
D = Savings as percentage of disposable income

Country	*1976*	*1977*	*1978*
Finland			
A	7.9	4.2	12.7
B	10.2	10.5	13.0
C	−1.3	2.7	5.1
D	*5.9*	*7.4*	*8.0*
France			
A[a]	13.5	14.2	13.2
B	13.1	13.8	12.4
C	3.8	4.6	1.9
D	*17.3*	*18.2*	*17.1*
Germany, Fed. Rep. of			
A	6.1	5.8	7.2[a]
B	5.8	6.1	7.6
C	1.9	3.4	3.3
D	*12.6*	*12.7*	*13.0*
Netherlands			
A	8.0	7.9	7.1[a]
B	9.0	8.3	..
C	−1.6	3.8	..
D	*12.8*	*12.9*	..
Sweden			
A	12.2	10.0	9.5
B	13.4	9.1	9.2
C	2.8	−1.6	−1.1
D	*10.2*	*9.8*	*9.2*
United Kingdom			
A	11.0	13.4	15.7
B	13.2	15.9	18.1
C	−1.6	7.0	5.4
D	*13.9*	*15.2*	*16.2*

Sources: As for appendix table; for the United Kingdom: *National Institute Economic Review*, November 1979.

[a] Compensation of employees.

During the recession (1974 to 1977), private consumption invariably rose faster, or declined less, than did fixed investment; and the situation did not change very much in 1978 and 1979 when private consumption behaved better than fixed investment in 9 out of 13 countries. Policy intentions to bring about a shift of resources from consumption to investment have so far achieved only a very limited success.[12]

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[10] For long-term series of investment ratios and capital stock in manufacturing for a number of west European countries, see, respectively, Economic Commission for Europe, *Economic Survey of Europe in 1976*, part 1, appendix table 2 (p. 76) and *Economic Bulletin for Europe*, vol. 30, No. 2, 1979, table 3.7 (p. 44).

[11] See also section 4 of this chapter.

[12] For the underlying figures for the period 1970 to 1979, see appendix table.

ENERGY CONSUMPTION

Information on energy consumption in western Europe in 1979 is still fragmentary, but the data so far available suggest a sizeable increase, of about the same order as the increase in industrial production and therefore more than the rise in GDP. As shown above, the recovery of output of 1979 was greater for industry than for the non-industrial sectors taken together, while it had increased less—or declined faster—than GDP in the recession years 1974 to 1977 and, in some countries, also in 1978. Since industry is a relatively energy-intensive sector, this pattern of output growth goes a long way to explain the large increase of energy consumption in 1979.[13] Consumption of oil appears to have increased less than of other primary energy sources taken together, but only a few countries—France and Switzerland among them—report an actual decline. A second reason for the high energy consumption in 1979 is the slowdown in energy conservation efforts which has become apparent in recent years, which in turn, largely reflects a decline of oil prices relative to manufactured products.[14] The latest increases in the price of oil and the increasing recognition of the insufficiency of past efforts, has led virtually all of the industrial countries to take new measures and to fix new and more restrictive targets for oil imports.

The information available so far on energy consumption in western Europe in 1979 is summarized below. In *Austria*, total energy supply rose by nearly 7 per cent, the increase being largest for coal, for which apparent consumption rose by about 14 per cent. Coal output declined, but imports rose by more than 21 per cent. In *France*, the increase of total energy consumption between 1978 and 1979 is not yet known, but oil consumption declined by 0.5 per cent. Imports of coal reached a record 29.7 million tons and further increases in imports are planned. Production of electric energy by nuclear plants rose by 30 per cent. In the *Federal Republic of Germany*, preliminary estimates indicate that primary energy consumption rose by nearly 6 per cent, and was thus larger than the growth of GDP and of the same order as the increase in industrial production. Among the primary energy sources, nuclear energy consumption increased by 18 per cent and natural gas by 10.4 per cent; the lowest increase was for oil (+3.3 per cent). In *Italy*, information on total energy consumption in 1979 is not yet available. Consumption of oil products is estimated to have increased by 3.7 per cent, the largest increase being in the transport sector. As in other countries, there was a fall in oil consumption for heating purposes as a consequence of the measures introduced by the Government at the end of 1978. For *the Netherlands*, forecasts prepared in April 1979 had put the primary energy consumption at 67.5 million tons of oil equivalent, implying an increase of about 4 per cent in comparison with 1978, which—as for many other countries—is a higher growth rate than that for total GDP but lower than that for industrial production. A decline of nearly 4 per cent was estimated for natural gas and a particularly sharp increase (about 14 per cent) for liquid fuels. In the *United Kingdom*, domestic energy consumption, on a primary fuel input basis, rose by about 5.5 per cent in the first three quarters of 1979 compared with the corresponding period of 1978. Consumption rose fast (by 8 to 9 per cent) for coal and natural gas, but less than 2 per cent for oil. Energy consumption rose only moderately for transport, with an increase of 3.3 per cent, but increased by 7 per cent in the iron and steel industries, by nearly 5 per cent in other industries, and by more than 6 per cent in the domestic sector. Oil consumption in western Europe as a whole is reported to have increased by about 3 per cent between the first ten months of 1978 and the corresponding period of 1979.

The development of primary energy requirements between 1970 and 1978 in individual west European countries, Canada and the United States, is shown in chart 1.1, which also indicates energy requirements for oil and oil products alone, as well as GDP growth.[15] Total energy requirements for domestic use in terms of primary inputs were higher in 1978 than in 1970 in all the west European countries as well as in Canada and the United States. However, the margin by which the 1970 level was exceeded in 1978 varies greatly among countries, ranging from 4 per cent or less in Denmark, Sweden and the United Kingdom to more than 20 per cent in Austria, France and the Netherlands, most countries clustering around an average increase of 15 per cent. The increase was much greater in the south European countries—ranging from 50 to 70 per cent in Greece, Portugal and Spain, and to about 150 per cent in Turkey—while it was similar to the west European average (about 15 per cent) in the United States. The time profile for the decade was very similar in the various countries: the pre-recession period (1970-1973) was characterized by a rapid growth of energy requirements, which dropped equally rapidly between 1973 (1974 in a few countries) and 1975. Subsequently, there was a gradual resumption of growth. By 1978, the previous (1973 or 1974) peak had been surpassed—by about 3 to 6 per cent—in Austria, Ireland, Italy, the Netherlands and Switzerland (as well as in Canada and the United States), while it had not been reached in Denmark and the United Kingdom. Elsewhere, energy requirements were very much the same in both years.

Requirements for oil and oil products followed the same time-trend as total energy requirements, but with a different intensity. In the 1970-1973 period, there was a faster increase for oil and oil products than for total energy materials in nine out of 13 west European countries. Thus, in Austria, consumption of oil and oil products rose by 32 per cent, while total energy consumption (in terms of primary energy inputs) rose by 15 per cent; in France, the two percentages are respectively 42 and 22 per cent. Oil and oil products consumption also rose faster than total energy requirements in the United States. The exceptions to this pattern are Denmark, the Netherlands, Norway, Sweden and Canada, largely because of a rapid increase in natural gas consumption. An increasing share of oil in total energy requirements also occurred in Greece, Portugal and Spain.

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[13] For a cross-country comparison of energy intensity in the various industries of the ECE region's countries, see Economic Commission for Europe, *Energy and metal intensiveness in the ECE region*, United Nations, Geneva, August 1978 (EC.AD.(XV)/AC.1/R.6).

[14] See OECD, *Energy policies and programmes of IEA countries; 1978 review*, Paris, 1979. On recent changes in the real price of petrol see below section 2 (ii).

[15] Primary energy requirements are net of producer stocks and net exports.

CHART 1.1

Energy requirements and GDP growth
(*Index numbers, 1969-1970 = 100*)

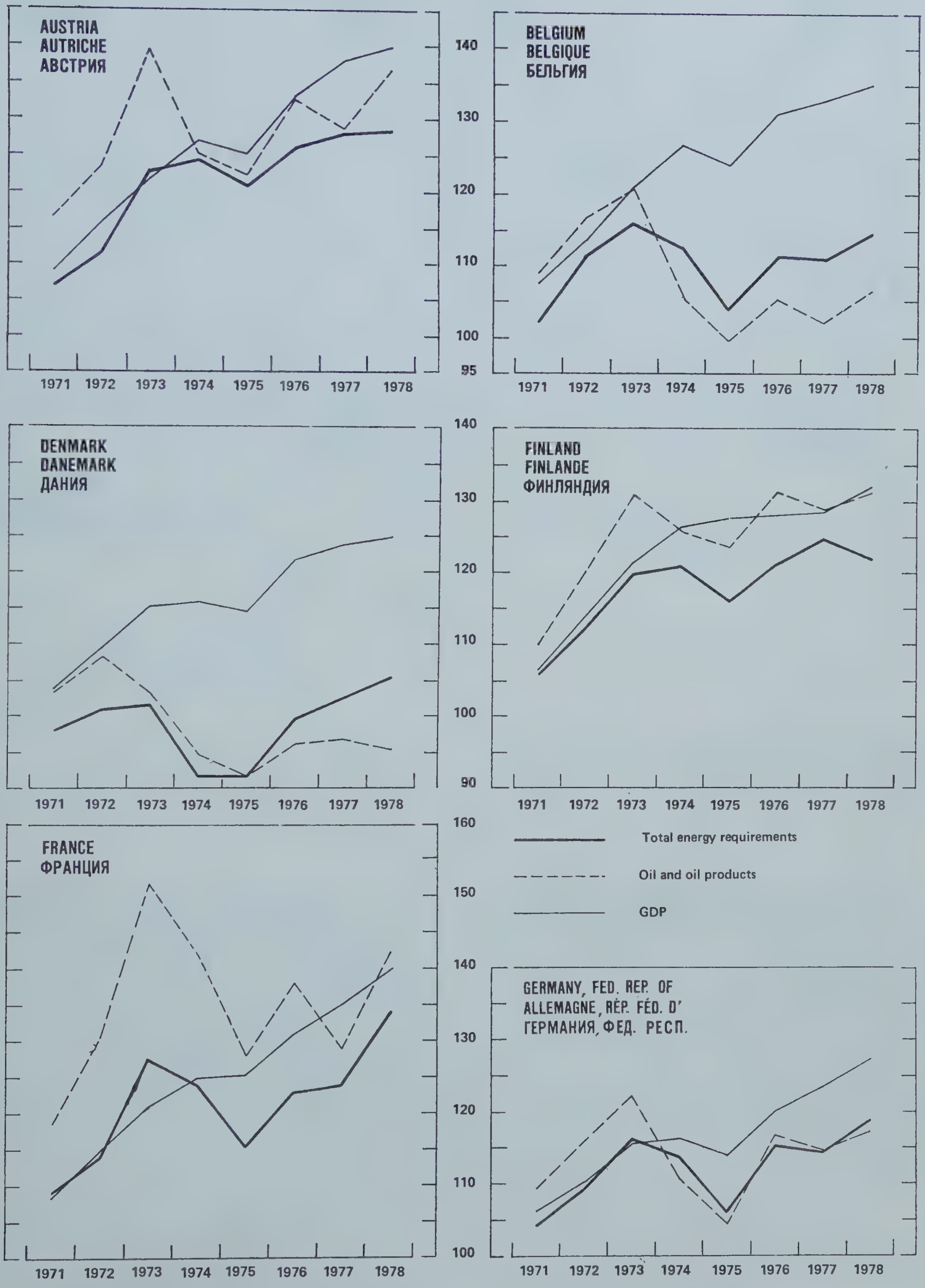


CHART 1.1 (*continued*)

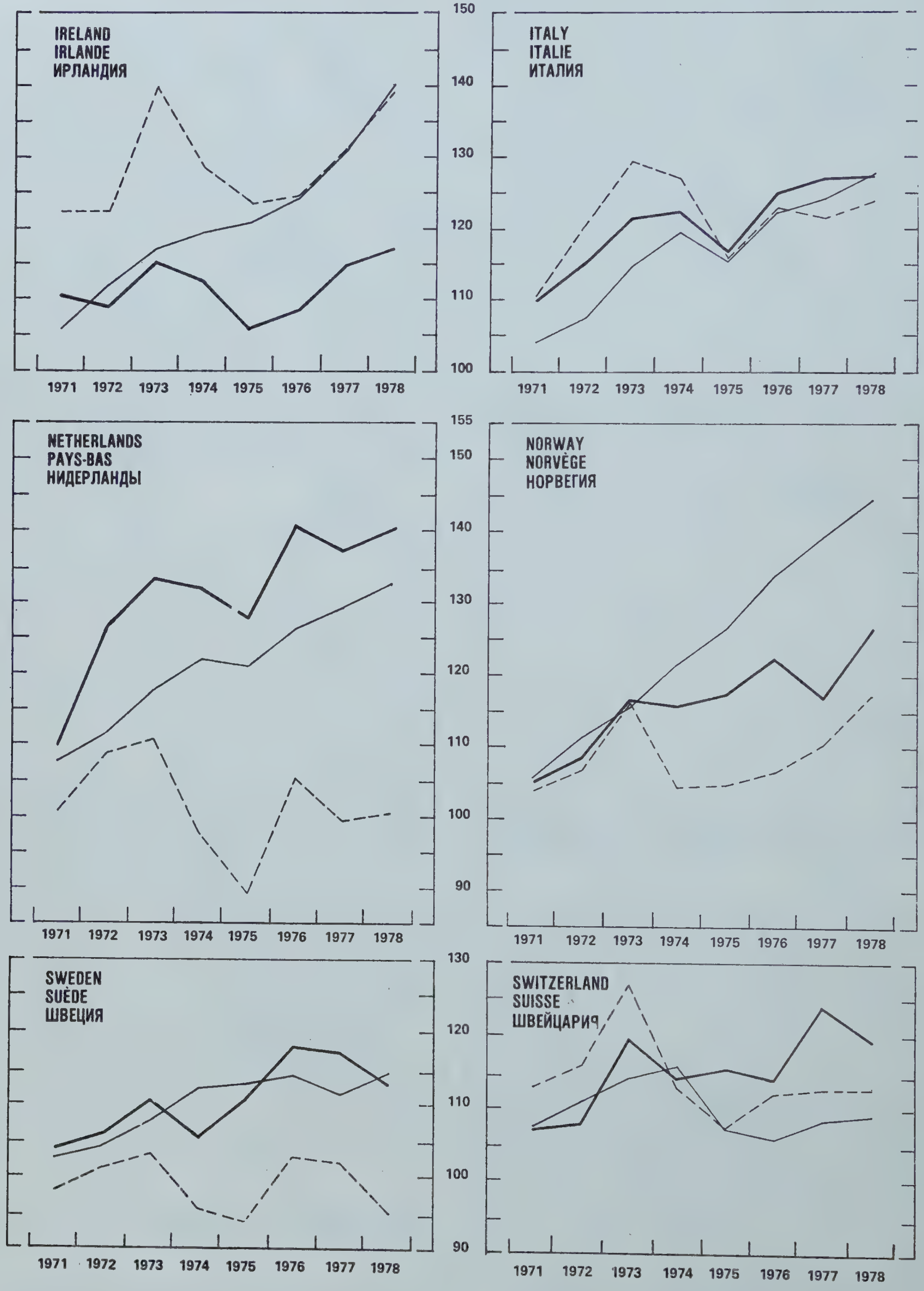
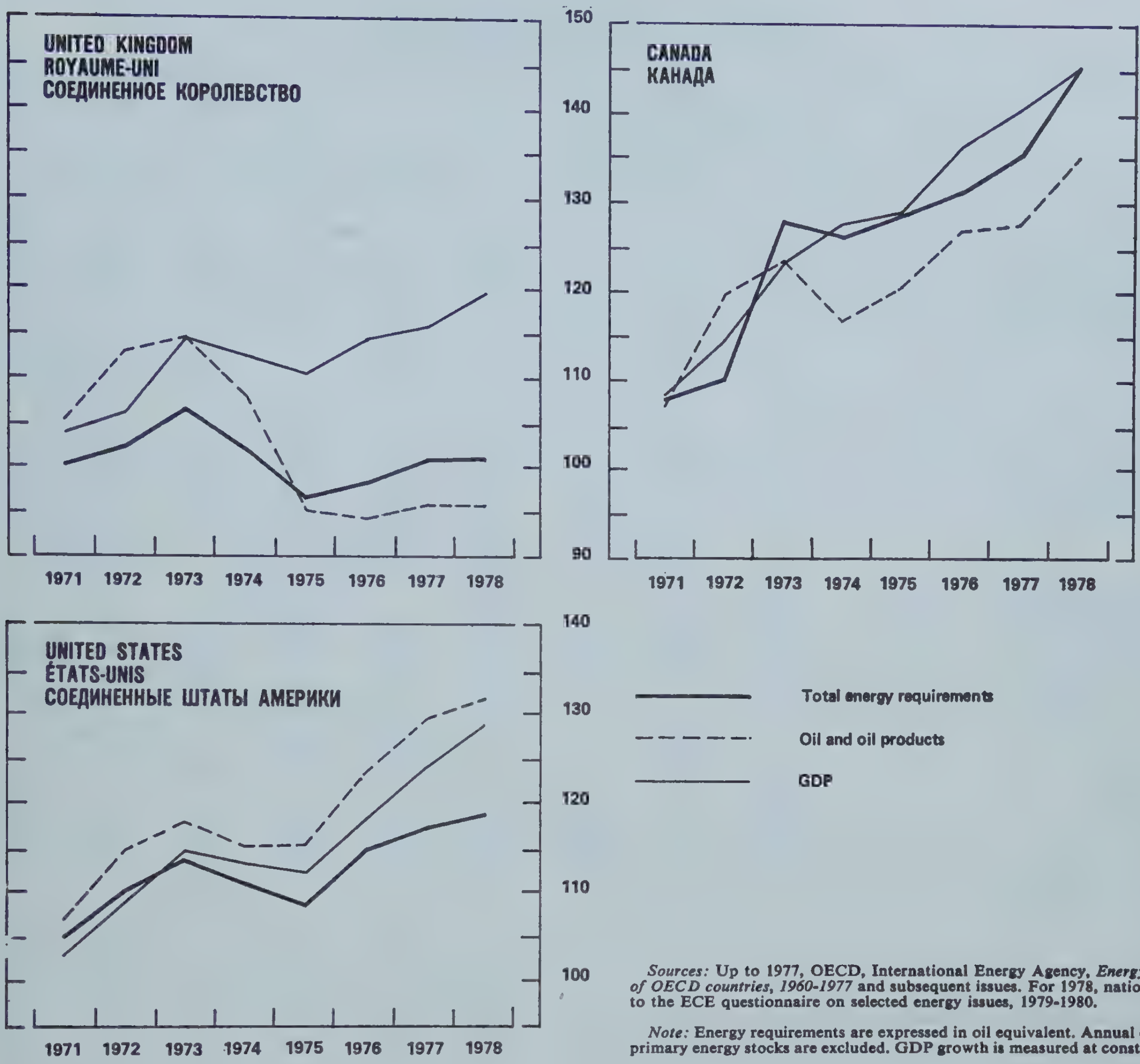


CHART 1.1 (*concluded*)



Sources: Up to 1977, OECD, International Energy Agency, ***Energy Balances of OECD countries, 1960-1977*** and subsequent issues. For 1978, national replies to the ECE questionnaire on selected energy issues, 1979-1980.

Note: Energy requirements are expressed in oil equivalent. Annual changes in primary energy stocks are excluded. GDP growth is measured at constant prices.

The fall in total primary energy requirements between 1973 and 1975 was sharper for oil and oil products than for the other energy sources taken together. The only exception to this general rule is the United States, where there was no reversal of the shift towards oil. After 1975, the dynamism of oil and oil products, relative to all other energy sources varied among countries. Consumption of oil and oil products rose relatively faster in Austria, the Federal Republic of Germany, Ireland, the Netherlands, Norway and Switzerland; elsewhere it rose less. The main explanation of these inter-country differences lies in different factor endowments. In countries such as the Federal Republic of Germany and Austria, where coal is still an important but declining energy source, there was a faster increase for oil than for other energy sources; elsewhere the discovery and exploitation of natural gas, mainly in the North Sea, led to a relative decline in the share of oil. For the decade as a whole, the prevailing tendency has been for the consumption of oil and oil products to rise less than total energy consumption, the exceptions being Austria, Finland and France.

Although the elasticity of primary energy requirements, with respect to GDP growth—for total energy consumption as well as for oil and oil products alone—varied considerably among countries, it remained below unity for most countries in the 1970s. However, it has varied considerably over the decade: it was generally higher than unity in the first period, 1970-1973, much lower than unity or negative between 1973 and 1975, and then approached unity again or exceeded it in the period 1975 to 1978.

Final energy consumption is shown in table 1.9 for the 13 west European countries, Canada and the United States for the period 1970-1978 and for four sectors separately, namely, industry, transport, commercial/households and "non-energy uses".[16] The dynamism of the four sectors differed considerably for the full decade and in the three sub-periods. For the full period, transport is the sector

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[16] This is apparent consumption which excludes producers' stocks but not the stocks held outside of the energy sector itself, which are unknown. The commercial/households sector is the same as "Other sectors" in table 1.9.

Table 1.9

Total apparent consumption of energy, 1970 to 1978

(Oil equivalent: index numbers, 1969-1970 = 100)

	1973	*1975*	*1978*	*1973*	*1975*	*1978*	*1973*	*1975*	*1978*
		Austria			*Belgium*			*Denmark*	
Total	126	122	124	119	106	115	106	94	107
of which:									
Industry	135	116	97	129	104	107	115	89	101
Transport	129	122	149	122	122	130	115	114	114
Other sectors [a]	118	134	140	116	114	115	101	90	109
Non-energy uses	99	104	142	60	40	147	86	62	86
		Finland			*France*			*Germany, Fed. Rep. of*	
Total	121	108	125	131	118	133	119	107	119
of which:									
Industry	128	105	112	115	103	107	126	110	94
Transport	125	136	138	133	135	167	124	124	143
Other sectors [a]	115	103	132	155	135	150	121	110	126
Non-energy uses	98	94	160	124	88	124	65	53	154
		Ireland			*Italy*			*Netherlands*	
Total	107	105	116	117	114	134	140	136	150
of which:									
Industry	97	105	133	127	119	136	179	160	124
Transport	122	125	146	120	118	141	125	125	140
Other sectors [a]	119	108	112	135	137	144	138	140	149
Non-energy uses	47	35	—	21	23	88	44	59	266
		Norway			*Sweden*			*Switzerland*	
Total	111	111	119	111	108	109	126	113	122
of which:									
Industry	116	115	116	118	115	106	117	102	101
Transport	103	117	106	108	113	126	124	114	123
Other sectors [a]	114	104	156	110	104	114	132	120	136
Non-energy uses	90	90	—	65	69	56	113	93	103
		United Kingdom			*Canada*			*United States*	
Total	107	97	102	119	120	140	109	101	109 [b]
of which:									
Industry	105	97	91	115	110	146	105	90	98 [b]
Transport	118	112	124	128	137	156	119	120	127 [b]
Other sectors [a]	102	99	103	115	115	119	109	103	111 [b]
Non-energy uses	115	42	107	130	121	179	88	64	74 [b]

Sources: As for chart 1.1   [a] Including households.   [b] 1977.

where energy consumption has risen most; the only exceptions to this are Italy, the Netherlands and Switzerland, where consumption grew fastest in the commercial/household sector. The transport sector was the most energy-thirsty also in Canada, the United States and Japan. Energy consumption growth was least in the industrial sector for the full decade under review; and, at the end of the 1970s, energy consumption in industry was either lower than or virtually at the same level as at the beginning of the period in Austria, Denmark, the Federal Republic of Germany, Switzerland, the United Kingdom and the United States. It was 15 per cent higher only in Ireland, Italy, the Netherlands, Canada and Japan. Between 1969 and 1973, final energy consumption generally rose faster in industry than in the other three sectors, but rose least in the other two sub-periods. In southern Europe, by contrast, energy consumption in the industrial sector was relatively more dynamic throughout the decade, its consumption rising by 50 per cent or more.[17] The decline in real oil prices led to a sharp increase in the production of oil-based products in 1978, mainly plastic materials which, in table 1.9, are included in the "non-energy uses" sector.

(iv) Employment and labour force

EMPLOYMENT AND LABOUR PRODUCTIVITY

For western Europe as a whole, and for most individual countries, the recession years 1974 to 1977 had led to a decline in total employment as well as to an accelerated

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[17] The share of each sector in total final energy consumption in 1975 is shown below in chapter 3, table 3.10.

TABLE 1.10

Employment by major sectors, and unemployment

A = Annual changes in thousand persons
B = Annual percentage change

Country and year	Total economy		Agriculture		Non-agricultural enterprise sector: Manufacturing		Non-agricultural enterprise sector: Non-manufacturing		General government		Unemployment level [a]	
	A	B	A	B	A	B	A	B	A	B		
Austria												
1970-1973	31	1.0	−23	−5.3	4	0.4	36	2.6	14	3.8	1969-1973	1.4
1974-1977	20	0.7	−13	−3.7	3	0.4	17	1.1	13	3.0	1973-1977	1.5
											December 1977	1.7
1978	20	0.6	−12	−3.6	−9	−1.0	28	1.8	13	2.9	December 1978	1.8
1979	17	0.5	..	..	−4	−0.5[b]	..	..	..	..	December 1979	1.5
Belgium [c]												
1970-1973	16	0.4	−12	−6.8	−4	−0.3	20	1.1	12	2.3	1969-1973	2.5
1974-1977	−9	−0.2	−5	−4.0	−37	−3.2	22	1.2	11	2.0	1973-1977	5.2
											December 1977	8.1
1978	—	—	−5	−4.1	−41	−3.9	19	1.0	27	4.5	December 1978	8.5
1979	7	0.2	..	..	..	..	..	..	..	..	December 1979	9.0
Denmark												
1970-1973	26	1.1	−12	−4.7	—	—	7	0.7	31	5.7	1969-1973	1.1
1974-1977	7	0.3	−2	−1.0	−17	−3.0	3	0.3	23	3.5	1973-1977	3.5
											December 1977	5.8
1978	45	1.9	−2	−1.0	−4	−0.8	14	1.5	37	5.1	December 1978	6.6
1979	29	1.2	..	..	3	0.6	..	..	..	..	December 1979	4.9
Finland [d]												
1970-1973	26	1.2	−24	−6.1	20	4.1	17	1.8	13	4.4	1969-1973	2.4
1974-1977	−14	−0.7	−17	−5.4	−2	−0.3	−13	−1.4	18	5.0	1973-1977	3.3
											December 1977	7.3
1978	−27	−1.3	−16	−5.9	−16	−3.0	−12	−1.3	17	4.1	December 1978	7.5
1979	47	2.2	−10	−3.9	21	4.0	21	2.3	15	3.5	December 1979	5.8
France												
1970-1973	192	0.9	−135	−5.1	89	1.6	164	1.8	74	2.7	1969-1973	1.5
1974-1977	34	0.2	−82	−3.7	−55	−1.0	111	1.2	60	2.0	1973-1977	3.4
											December 1977	4.9
1978	32	0.2	−63	−3.2	−91	−1.6	138	1.4	48	1.5	December 1978	5.7
1979	54	0.3	..	..	−90	−1.6	..	..	..	..	December 1979	6.4
Germany, Fed. Rep. of												
1970-1973	83	0.3	−110	−5.0	5	0.1	77	0.7	111	4.3	1969-1973	0.8
1974-1977	−423	−1.7	−75	−4.1	−262	−2.7	−142	−1.3	56	1.9	1973-1977	3.1
											December 1977	3.9
1978	168	0.7	−47	−2.8	−4	−0.1	153	1.4	66	2.2	December 1978	3.6
1979	296	1.2	..	..	53	0.6	..	..	..	..	December 1979	3.1
Ireland												
1970-1973	−3	−0.3	−10	−3.3	2	0.8	2	0.6	3	1.7	1969-1973	5.8
1974-1977	−6	−0.6	−6	−2.5	−2	−0.8	1	0.3	3	1.4	1973-1977	8.1
											December 1977	9.4
1978	11	1.1	−6	−2.6	4	1.9	7	1.9	6	3.0	December 1978	8.5
1979	14	1.4	−4	−1.7	..	..	..	..	..	..	December 1979	7.7
Italy												
1970-1973 [e]	157	1.2	−25	−1.9	71	1.5	40	0.8	71	3.6	1969-1973	4.8
1974-1977	156	0.8	−73	−2.3	39	0.7	130	1.5	60	2.7	1973-1977	5.4
											December 1977	7.0
1978	121	0.6	−31	−1.1	−43	−0.7	160	1.8	35	1.5	December 1978	7.6
1979	218	1.1	−78	−2.5	..	..	..	..	..	..	December 1979	7.5
Netherlands [d]												
1970-1973	13	0.3	−8	−2.3	−18	−1.5	14	0.6	25	3.8	1969-1973	1.6
1974-1977	−4	−0.1	−5	−1.7	−29	−2.7	4	0.2	26	3.4	1973-1977	3.5
											December 1977	4.3
1978	9	0.2	−5	−1.8	−27	−2.6	24	1.0	17	2.1	December 1978	4.3
1979	10	0.2	−5	−1.8	−10	−1.0	..	..	..	..	December 1979	4.3
Norway [d]												
1970-1973	11	0.7	−12	−6.3	4	0.9	7	1.1	12	5.1	1969-1973	0.9
1974-1977	21	1.4	−5	−3.1	1	0.3	14	1.9	11	3.9	1973-1977	1.7[f]
											Q4 1977	1.4
1978	18	1.1	−3	−2.1	−5	−1.3	11	1.4	15	3.7	Q4 1978	2.0
1979	8	0.5	−2	−1.4	−5	−1.3	5	0.6	10	3.2	Q4 1979	1.7

TABLE 1.10 (*continued*)

Employment by major sectors, and unemployment

A = Annual changes in thousand persons
B = Annual percentage change

					Non-agricultural enterprise sector							
	Total economy		*Agriculture*		*Manufacturing*		*Non-manufacturing*		*General government*			
Country and year	*A*	*B*	*A*	*B*	*A*	*B*	*A*	*B*	*A*	*B*	*Unemployment level*[a]	
Sweden												
1970-1973	25	0.7	−16	−5.0	−4	−0.4	−5	−0.3	50	6.6	1969-1973	2.2
1974-1977	53	1.3	−7	−2.6	−3	−0.3	12	0.7	51	5.3	1973-1977	1.9
											December 1977	1.8[g]
1978	19	0.5	−2	−0.8	−31	−3.1	−10	−0.6	62	5.6	December 1978	2.1[g]
1979	65	1.6	−4	−1.6	9	−0.9	19	1.1	59	5.1	December 1979	1.7[g]
United Kingdom[c]												
1970-1973	34	0.2	−26	−3.3	−130	−1.5	55	0.5	135	3.2	1969-1973	2.9[h]
1974-1977	−15	−0.1	−14	−2.0	−122	−1.5	8	0.1	113	2.4	1973-1977	4.0[h]
											December 1977	5.9[h]
1978	59	0.2	−4	−0.6	−44	−0.6	78	0.7	29	0.6	December 1978	5.5[h]
1979	146	0.6	−20	−3.1	−86	−1.2	..	..	..	..	December 1979	5.3[h]
Canada												
1970-1973	232	2.9	−16	−2.5	27	1.5	193	3.7	28[i]	6.1	1969-1973	5.6
1974-1977	222	2.5	−5	−0.9	−10	−0.5	216	3.4	21[i]	3.8	1973-1977	6.6
											December 1977	8.5
1978	324	3.4	20	3.6	68	3.6	224	3.4	12[i]	1.9	December 1978	8.1
1979	400	4.0	22	3.8	84	4.3	..	..	..	..	December 1979	7.1
United States												
1970-1973	1 627	2.0	−39	−1.1	−3[b]	—	1 285	2.9	384	3.0	1969-1973	5.0
1974-1977	1 534	1.8	−52	−1.5	−118[b]	−0.5	1 367	2.8	337	2.4	1973-1977	6.7
											December 1977	6.4
1978	3 827	4.2	98	3,0	794[b]	4.0	2 537	4.8	398	2.6	December 1978	5.9
1979	2 688	2.8	−64	−1.9	450[b]	2.2	2 200	4.0	102	0.7	December 1979	5.9

Sources: National statistics and ILO, *Yearbook of Labour Statistics*, Geneva, 1979; OECD, *Labour Force Statistics, 1966-1977*, and *Quarterly Supplement, November 1979*, Paris, 1979; EUROSTAT, *Employment and Unemployment, 1972-1978*, Luxembourg, 1979.

Note: Figures for 1979 are partly estimated by the Secretariat.

[a] Unemployment as percentage of total civilian labour force. Annual averages for 1970-1973 and 1974-1977. Data for December 1977, 1978 and 1979 are seasonally adjusted.

[b] Refers to employees only.

[c] Employment refers to June of each year.

[d] Man-years.

[e] Excludes self-employed.

[f] Increase in coverage, not comparable to prior data.

[g] Not seasonally adjusted.

[h] Unemployed as a percentage of the total number of employees. Excluding school-leavers.

[i] Public administration and defence only.

shift of manpower towards private services (table 1.10).[18] Up to 1973 employment was increasing in industry as well as in private services, though at a faster rate in the latter than in the former. Until then, the employment growth in manufacturing was lower than in private services except in Finland, Ireland and Italy; and an actual decline of manufacturing employment occurred—starting about the mid-1960s—only in the Netherlands, Sweden and the United Kingdom. After 1973, the employment decline in manufacturing became fairly general, the only exceptions being Austria and Norway where output continued to expand vigorously. The decline was particularly large (2½ per cent per year or more) in Belgium, Denmark, the Federal Republic of Germany and the Netherlands. By contrast, employment in private services continued to increase and, though there was generally a deceleration in comparison with the pre-recession years, this was small so that the already existing differences between the development of employment in manufacturing and private services widened.[19] The prevailing feature was for the employment decline in manufacturing to be greater than the employment increase in the rest of the non-farm enterprise sector. Employment in Government services continued to increase at a higher rate than in private services though here too there was a small deceleration in most countries, as there was also in the reduction of agricultural employment.

The situation started to improve in 1978 when the employment decline in manufacturing decelerated and in some countries was offset, or more than offset, by the employment increase in private services. A further improvement occurred in 1979 when total employment rose by about 900 thousand persons in western Europe compared with about 450 thousand persons in 1978. In 1979, there was an acceleration of the increase in employment in services and the previous employment decline in manufacturing was followed by an increase in most countries; where it continued to decline, it did so at a much lower rate. Employment in Government services continued to increase everywhere and the growth was particularly sharp (5 per cent or more) in Denmark and Sweden where this sector is actively used to support the over-all employment level. The outflow of agricultural manpower remained modest, that is, much lower than in the pre-recession years and very much as in the period 1974 to 1978. Total employment rose in all the west European countries in 1979 at rates ranging from 0.2 per cent in Belgium and the Netherlands to more than 2 per cent in Finland. It also rose more than 1 per cent in Denmark, the Federal Republic of Germany, Ireland, Italy and Sweden. Employment also continued to increase rapidly in 1979—and faster than historical trends—in Canada and the United States. In Canada, there was, according to preliminary estimates, an exceptional increase of 4 per cent or 400,000 persons. Agriculture shared in the over-all employment increase.

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[18] Table 1.10 shows, *inter alia*, figures for the "non-farm enterprise sector" which is split into two parts, that is, manufacturing and the rest. In the text the expression "private services" is used for short to denote the last sector, that is the non-farm enterprise sector less manufacturing.

[19] Between 1974 and 1977, employment in "private services" declined only in Finland and the Federal Republic of Germany but the decline was much smaller than that in manufacturing

The favourable employment development in 1979 led to a decline in unemployment in most west European countries and in Canada. Between December 1978 and December 1979 unemployment rose only in Belgium and France and remained at the previous year's level in the Netherlands, the United Kingdom and the United States.

For 1980, the poor expectations for output are obviously reflected in the employment forecasts. However, because of the usual time-lag with which employment follows output changes, employment prospects are less bad than might be expected from the prospects for output. The brunt of the expected deceleration in output should fall on labour productivity. National forecasts for 1980 for GDP, employment (E) and output per person employed (P) are summarized below for eight countries. Some further increase in employment is forecast for five countries but only in Finland and Sweden is it larger than the expected increase in the potential labour force.

Percentage changes, 1979 to 1980

	GDP	*E*	*P*
Austria	2.5	0.1	2.4
Denmark	0.1	−1.0	1.1
Finland	4.5	1.4	3.1
Germany, Federal Republic of	2.5	0.5	2.0
Ireland	2.5	0.4	2.1
Norway	4.2	—	4.2
Sweden	3.6	1.2	2.4
United Kingdom [a]	−0.5	−0.7	0.2

Sources: As for appendix table.

[a] Employees. Estimates taken from *National Institute Economic Review*, London, February 1980.

Changes in output per person employed (in short, labour productivity) are shown in table 1.11 for 13 west European countries, Canada and the United States for the period 1970 to 1979. In 1974-1977, the deceleration in output was accompanied, as might be expected, by a similar deceleration in labour productivity growth, which however was sharper in services than in manufacturing. Before the start of the recession in 1974, both output and labour productivity was rising faster in manufacturing than in the private service sector. During the recession there was a reversal of the relative position of the two sectors in terms of output but not in terms of productivity growth. Output developed less unfavourably in services than in manufacturing. The main reason was simply that investment displays larger cyclical swings than private consumption, and that investment goods account for a much larger proportion of manufacturing output than in services. In Denmark and the Federal Republic of Germany there was indeed some acceleration of labour productivity growth in manufacturing in the 1974-1977 period in comparison with the 1970-1973 cycle. In these countries, the "shake-out" effect seems to have more than offset the downward effect of lower output rates. By contrast, the deceleration in labour productivity growth was sharp for private services in virtually all countries in spite of relatively favourable output developments in this sector. Employment in private services thus continued to increase and in the 1974-1977 recession this sector played, even more than in previous cycles, its traditional role of "shock-absorber".

The sectoral development of labour productivity growth resumed a more normal pattern in 1979 when it grew faster in manufacturing than in the rest of the economy. Nevertheless, labour productivity growth per unit of output appears rather modest in 1979 in comparison with previous cyclical upswings in a number of countries and one reason might well be the poor investment performance of past years.[20] It is worth repeating, however, that the relatively poor productivity performance of 1979 affected private services more than the manufacturing sector. In the non-manufacturing sectors combined, labour productivity appears to have declined in 1979 in Switzerland, Canada and the United States and probably remained flat in the United Kingdom.

POTENTIAL LABOUR FORCE

Unemployment rates at the end of 1979 are shown in table 1.10. However, as is well known, officially recorded unemployment does not always give a full measure of potential employment reserves. Past developments have shown that a slowdown in output affects not only the level of employment but may also have an impact, either negative or positive, on the size of the labour force. In fact, the available statistical evidence based on past experience suggests that the negative or "discouraged worker" effect, that is the withdrawal from the labour force of workers already in it or the non-entry into the labour force of potential workers, may exceed the positive or "added worker" effect, thus giving rise to what has come to be called "concealed unemployment". Was there a large amount of "concealed unemployment" in western Europe in 1979, that is, a large but unrecorded reserve of labour which could be employed if demand were sufficiently strong?

In the following paragraphs, an attempt is made to assess the possible extent of concealed unemployment and the corresponding employment gap, defined as including open and concealed unemployment, in eleven west Euro-

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[20] See also section 4 of this chapter.

TABLE 1.11

Output per person employed, total economy and manufacturing

(Annual percentage change)

Country	*Output per person employed* — *Total economy* 1970–1973	1974–1977	1976	1977	1978	1979[a]	*Manufacturing* 1970–1973	1974–1977	1976	1977	1978	1979[a,b]
Austria	5.0	2.5	5.6	2.4	0.9	4.5	6.6	1.8	10.5	0.9	2.7	6.5
Belgium	5.0	2.5	6.1	1.4	2.5	3.0	8.1	4.6	12.0	3.7	5.3	..
Denmark	2.8	1.6	4.0	1.6	−0.4	2.0	3.9	4.4	5.6	4.2	3.5	..
Finland[c]	4.4	2.0	2.0	2.8	3.2	4.0	3.7	0.7	1.5	2.1	5.7	4.5
France	4.7	2.5	4.1	2.4	3.1	3.0	4.8	3.9	8.2	4.5	4.3	5.5
Germany, Fed. Rep. of	4.1	3.3	6.1	2.9	2.5	3.0	4.0	4.2	9.5	3.3	1.7	4.5
Ireland	4.7	3.3	2.6	5.9	4.9	1.0	5.2[b]	4.1[b]	13.9[b]	4.8[b]	6.8[b]	..
Italy	4.3	1.4	5.1	1.5	2.0	4.0	5.0	1.8	12.0	1.5	2.8	6.5
Netherlands[c]	4.7	2.8	5.4	2.5	2.2	3.0	7.4	3.6	11.6	3.5	4.4	4.0
Norway[c]	3.3	3.5	4.9	1.5	1.9	3.0	3.7	−0.1	0.7	−1.7	−0.9	3.5
Sweden	1.8	−0.3	0.6	−2.1	1.6	2.5	4.7	−1.0	−0.6	−3.0	3.6	8.5
Switzerland	3.7	1.3	2.6	2.4	−0.6	—	5.0	2.2	5.8	5.6	1.0	1.5
United Kingdom	2.9	0.4	2.7	2.2	2.5	0.5	4.3	0.5	4.6	0.7	1.1	1.5
Canada	2.7	1.0	3.1	1.4	0.6	−1.0	3.7	2.0	2.9	4.5	4.1	0.5
United States[d]	1.4	0.3	2.6	1.7	0.1	−0.5	3.4	1.5	5.5	2.6	1.9	2.0

Source: For output: United Nations, *Yearbook of National Accounts Statistics*, New York; OECD, *National Accounts of OECD Countries*, Paris; and national statistics. For employment: as for table 1.10 (employment by sectors).

Note: Except for 1979, output in manufacturing has been taken from gross value added at constant prices. The data in this table may therefore differ from those shown in table 1.2 where industrial output is based on the indices of industrial production.

[a] The provisional estimates for 1979 have been rounded to the nearest 0.5 percentage point.

[b] Output data are based on short-term indices of manufacturing production.

[c] Employment data refer to man-years.

[d] Employment data refer to wage-and salary-earners only.

pean countries. The first step in this exercise was to measure the potential labour force, that is the labour supply which would be generated under normal demand conditions. Projections of the labour force up to 1985 taking 1975 as the base year, published in a recent study of the secretariat,[21] may serve as estimates of such a potential, since the projections are based on the implicit assumption that demand factors would not be much lower than in the years before 1973 (that is, an output growth of some 4 to 5 per cent per year). Another assumption was zero migration during the projection period.[22]

Actual and potential changes in the labour force between 1975 and 1979, together with the difference between them, as an indication of the possible incidence of concealed unemployment, are shown in table 1.12, which also contains estimates of the employment gap, that is, the difference between potential labour force and employment. For the employment gap calculation, potential labour forces with zero migration were taken as the basis for the analysis. In contrast, data on potential labour force allowing for migration, i.e. subtracting or adding the net outflow or inflow according to the case, were used to estimate the difference between potential and actual labour force. For Denmark, Ireland and Norway net migration figures were not available, but in these three countries international migration of workers is comparatively small, and, therefore, would not affect the estimates.

The relations between employment, actual labour force, and potential labour force in 1979 are shown in the following text table, where two versions of potential labour force are presented. The first one is taken straight from table 1.12 and assumes zero inter-country migrations

Employment and labour force in eleven countries, 1979

(Index numbers, actual employment level in 1979 = 100)

A = Actual labour force (employment + open unemployment)
B = Potential domestic labour force [a]
C = Potential labour force [b]

	A	*B*	*C*
Austria	101.7	103.1	102.9
Belgium	109.5	109.5	110.2
Denmark[c]	105.5	..	100.1
Finland	106.6	107.5	108.9
France	106.4	105.4	106.6
Germany, Federal Republic of	103.5	105.2	106.0
Ireland[c]	108.7	..	117.0
Netherlands	104.6	109.2	109.6
Norway[c]	102.0	..	97.0
Sweden	102.1	100.7	101.2
United Kingdom	105.6	106.1	106.3

Sources: As for table 1.12 and OECD, SOPEMI Reports, various years.

[a] Projected labour force net of inter-country migration of workers.

[b] Projected labour force assuming zero net inter-country migration.

[c] For Denmark, Ireland and Norway no data on migration was available.

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[21] Economic Commission for Europe, "Labour force and employment in western Europe: the prospects to 1985 by major sectors", *Economic Bulletin for Europe*, vol. 30, No. 2, United Nations, New York, 1979.

[22] The secretariat used the latest official projections as far as possible. The countries for which the official projections were not available were Belgium, Denmark and the Netherlands. For Finland, France, Ireland and Norway only the total labour force figures were available. For the Federal Republic of Germany, immigrants were included in the base year, while in the United Kingdom, Great Britain's activity rates were used also for Northern Ireland.

TABLE 1.12

Changes in the labour force and its components in eleven west European countries, 1975 to 1979

(*Thousands*)

Country	1975			1975 to 1979 Actual change			Change in potential labour force [a] (7)	Difference between potential labour force and:	
	Employment (1)	Unemployment (2)	Labour force (3)	Employment (4)	Unemployment (5)	Labour force (6)		Actual labour force (8) = (7) − (6)	Employment (9) = (7) − (4)
Austria	3 177	56	3 233	93	1	94	130	36	37
Belgium	3 747	208	3 955	−29	144	115	143	28	172
Denmark	2 332	113	2 445	156	25	181	45	−136	−111
Finland	2 221	51	2 272	−90	90	0	50	50	140
France	20 624	840	21 464	317	510	827	867	40	550
Germany, Fed. Rep. of	24 798	1 074	25 872	177	−198	−21	598	619	421
Ireland	1 038	99	1 137	9	−8	1	88	87	79
Netherlands	4 552	195	4 747	26	15	41	270	229	224
Norway	1 707	40	1 747	155	−2	153	60	−93	−95
Sweden	4 065	67	4 132	120	21	141	105	−36	−15
United Kingdom	24 596	978	25 574	160	413	573	753	180	593

Sources: National statistics; EUROSTAT, *Eurostatistics*, Collection 1, 1-1980, edition B, January 1980; ILO, *Bulletin of Labour Statistics*, 1979 fourth quarter, Geneva 1980; OECD, *Main Economic Indicators*, Paris, January 1980; Economic Commission for Europe, *Economic Bulletin for Europe*, United Nations, New York, 1979, vol. 30, No. 2.

[a] At 1975 employment levels and assuming zero net inter-country migration.

of workers in the period 1975 to 1979. The rationale for this is that, given a sufficient demand pull in the employment-receiving countries, there was no reason for expecting a reduction in the number of foreign workers. However, inter-country migration did take place, and therefore a second version of potential labour force is shown, which is equal to the potential labour force (as defined above) corrected for actual inter-country migrations between 1975 and 1979. This second version of the potential labour-force is called "potential domestic labour supply": it measures the manpower reserves actually existing in the employment-receiving countries in 1979.

As can be seen from these data the differences between the index numbers of potential and actual labour force, which constitutes a measure of concealed unemployment, are small in the majority of countries. This holds true both for domestic and total potential labour force. Although in most countries international migrations added to the potential labour supply, the only exception being Austria, their effect on the whole was small.

The only two countries where potential labour supply was well in excess of the actual labour force, thus suggesting the presence of concealed unemployment on a significant scale, were Ireland and the Netherlands. Whereas in Ireland open unemployment, the traditional factor associated with concealed unemployment, remained high throughout the 1975-1979 period and thus may have discouraged workers from entering or remaining in the labour market, this was not the case in the Netherlands. Registered unemployment in the latter country was not exceptionally high, compared with other west European countries, and this makes it unlikely that demand factors depressed labour supply. The explanation may be found, at least partially, in labour market policies with respect to supply, particularly the withdrawal of the labour force taking place under the labour unfitness legislation. It has been estimated that in 1975 to 1977 the concealed unemployment amongst those affected by the labour unfitness legislation increased by some 27,000, accounting for a substantial part of the observed difference between potential and actual labour force in that year.

For the remaining nine countries the data do not provide evidence for the existence of a substantial amount of concealed unemployment. Potential labour force exceeded actual labour force in Austria, Belgium, Finland, the Federal Republic of Germany and the United Kingdom but the margin of difference was relatively small. In fact, in four countries, Denmark, France, Norway and Sweden, the index for actual labour force was higher than that for potential labour force.

On the whole these results suggest that the conditions and unemployment provisions tending to discourage labour force participation in times of weak demand in the labour market no longer exert the same effect that they may have had in the past. This seems to be borne out to some extent when the change in the actual labour force between 1975 and 1979 is considered in more detail.

In most countries, the share of women in the total change in the labour force between 1975 and 1979 was far greater than that of men, as the following data for selected countries show:

Contribution of males and females to changes in total labour force and unemployment in selected west European countries

(*1975-1979*)

	Change in total labour force (Thousands)		Change in total unemployment (Thousands)	
	Males	Females	Males	Females
Belgium	−3	118	34	111
Denmark	58	123	−10	35
France	310	517	205	305
Germany, Federal Republic of	38	−59	−206	7
Ireland	−7	8	−10	1
Netherlands	−28	69	−20	36
United Kingdom	−61	634	187	226

Source: As for table 1.12.

Except for the Federal Republic of Germany, where the female labour force declined, women workers accounted for at least 60 per cent of the increase in the labour force during the 1975-1979 period. Particularly significant in this context is that this higher participation of women was associated, in most cases, with substantial increases in unemployment. In the case of Belgium, female unemployment increased by nearly as much as the female labour force. In the other countries, differences were larger but in the majority the "marginal" unemployment rate was substantially higher than the average rate of unemployment for women. It would seem, therefore, that adverse labour market conditions may no longer constitute as much of a barrier to labour force participation, probably because better unemployment benefits favour entry into the labour market even when the prospects of finding stable employment are limited.

Labour market policies

As the broad conclusions of the preceding comparisons of potential versus actual labour force and employment gaps suggest, labour market measures have had significant effects on labour supply and on employment. Against a background of persistent unemployment in most countries, labour market measures are likely to continue to be prominent in national economic policies, and to become an important institutional factor in the management of the economy. Virtually all Governments have adopted a variety of measures to raise employment: these include expanded and improved employment services; training, job placement schemes, job preservation subsidies, employment creation in the public sector, regional development and so forth. In addition to this type of intervention, designed to stimulate employment directly, increasing attention is being given to measures which would lessen existing pressures in the labour market through the reduction of the labour supply. The best known and most widely applied in this regard are the direct and indirect controls on international migration and foreign workers which were introduced in the early stages of the economic slowdown More recently the implications for effective labour supply of a number of other measures related to employment and conditions of work, but not primarily designed to affect labour supply, have received greater attention. Amongst these the most important are: early retirement schemes which imply a permanent withdrawal from the labour market; training and rehabilitation programmes which have the effect of either delaying entry into the labour market or a temporary withdrawal from it; and reduction of hours of work either on a permanent basis, as in the case of the downward trend in standard hours of work, or for given time periods only, such as short-time work schedules. Still other policies in the field of labour can have the effect of reducing the effective labour supply, in the sense of bringing about, permanently or temporarily, fully or partially, a withdrawal of labour from the market. Examples of the latter are labour unfitness provisions, maternity leave for women workers, and so forth.

These and other measures influencing labour supply do not as yet constitute a coherent set of policies nor are they generally applied, or recognized, as deliberate measures aimed at reducing the supply of labour in addition to the original objectives for which they were designed. A review of existing schemes must, therefore, of necessity be incomplete.

Whereas flexible retirement schemes were originally seen mainly as socio-economic measures, allowing either downward or upward adjustments in the age of withdrawal from the labour force, against a background of stagnating economic growth and employment, they have come to be regarded also as employment policy instruments and concerned principally with increasing the opportunities for early retirement. With a view to reducing labour market pressures from the supply side, enlarged provisions for early retirement have been adopted in a number of countries, even including some such as the United Kingdom, where job creation rather than labour supply reduction measures are the predominant employment policy orientation. Comparatively little is as yet known about the impact of early retirement schemes on effective labour supply and on existing or potential unemployment, even though in some countries early retirement provisions account for a substantial part of the Government's package of employment policy measures. In Belgium towards the end of 1979 some 73,500 persons had benefited from the existing early retirement schemes, a figure representing about 45 per cent of all those directly affected by the Government's employment measures and about 2 per cent of the civilian labour force. The impact on effective labour supply, however, was less than the total suggests as more than one-fifth of the persons involved participated under a scheme which allowed early retirement of the aged unemployed. To the extent that early retirement was linked to the replacement of old by young workers, as under the regime for private industry under which the employer is obliged to recruit a young worker under 30 years of age for the job vacated by the pre-pensioner, the employment effect was substantial. About 90 per cent of the 30,000 pre-pensioners were replaced by young workers and the 27,000 jobs involved represented somewhat over one-third of the total number of those participating in the various early retirement schemes. In Denmark, where the retirement age of 67 years is comparatively high, a flexible retirement age starting at 60 years was introduced in 1979. It is estimated that by the end of the year up to 40,000 workers may have made use of this opportunity. Such a figure would represent about 1.5 per cent of the civilian labour force and close to one-sixth of the labour force aged 60 years and over. As to the labour supply and employment effects, there are indications that half of those going into early retirement no longer formed part of the effective labour supply, being aged unemployed or partial invalids, and that only roughly one-quarter of the jobs vacated will be filled by young workers. In the Federal Republic of Germany early retirement schemes may have led to more than 250,000 withdrawals from the labour force (of persons aged 60 to 64 years) between 1975 and 1978.

Besides measures aimed at reducing the supply of labour through lowering the age of retirement, attention has also been given to ways of raising the age of entry of the young into the labour market. To this end some Governments have promoted with some success, as in the case of the Netherlands and Sweden, the continuation of education beyond the normal school-leaving age. However, most of the provisions which have an impact on the entry of youth into the labour force are in the area of vocational training and schooling, which are not only directed towards the young, but, generally, to groups in the labour force which do not have the necessary or appropriate skills.

While training programmes are, of course, basically aimed at raising employment, they also imply a decrease in the effective labour supply during the training period of those participating in such programmes. The relative importance of training programmes within labour market policies varies substantially between countries. In Belgium, for instance, the number of persons involved in training schemes in 1978 amounted to about 31,000, which represented about one-quarter of all those participating in Government employment schemes and about 0.8 per cent of the civilian labour force. In comparison, the 76,000 persons who participated in training programmes in the Netherlands accounted for more than 70 per cent of the total in Government labour programmes and for over 1.6 per cent of the labour force. For the Federal Republic of Germany, it has been estimated that vocational training in 1978 amounted to 69,000 man-years, representing somewhat less than 20 per cent of the total number of man-years affected by labour market policies and only 0.2 per cent of the labour force.

A final group of labour market measures which have a bearing on the supply of labour are those related to hours of work and, particularly, short-time work. Although other forms of changes in working hours, such as reductions in standard hours of work or over-time and the spread of part-time work, may also have the effect of reducing labour supply, Government schemes have been particularly concerned with short-time work and provide subsidies to make up for the lost earnings of those who work less than normal hours. Under the short-time working compensation scheme introduced in the United Kingdom in 1979, compensation for some 27,000 jobs threatened with redundancy involved shared short-time working by some 69,000 workers. In the Federal Republic of Germany in 1978 short-time workers under the labour market schemes amounted to 250,000 persons, representing around 84,000 man-years. It was estimated that as a result unemployment, on an annual basis, was reduced by some 56,000 or somewhat less than one-third of the total decrease in unemployment brought about by such direct policy interventions.

Provisions for maternity leave of women workers have been incorporated in the legislation of most countries. In general, paid maternity leave in the countries of the region amounts on average to 14 weeks. Moreover, in a number of cases the period of maternity leave has been extended up to two years or more during which time the women would be on unpaid leave of absence without losing their jobs. In the Federal Republic of Germany the usual maternity leave after birth can be extended for another 3 or 4 months during which period the woman continues to receive part of her maternity allowance. The impact of these measures on the supply of labour is not yet clear: the increasing labour force participation of married women and their tendency to continue working after childbirth tends to raise the potential effect, but the latter will be offset, at least in part, by the low levels to which fertility has declined.

Social security schemes for retirement may tend to reduce the supply of labour if pension and other benefits are not substantially affected by earlier retirement. Such provisions in the social security programme in the United States are thought to have encouraged, to some extent, early retirement. Specific social security provisions may have the same effect, as is particularly evident in the case of the existing labour unfitness legislation in the Netherlands. The criteria for eligibility under this law, the benefits of which are higher than those under unemployment schemes, are, besides the state of health of the person, his training and job experience as well as the employment possibilities in the regional labour market. The number of beneficiaries under this programme increased from somewhat below 200,000 in 1969 to 350,000 in 1975 and reached over 600,000 in 1979. Because the criteria for eligibility are economic as well as medical, it has often been speculated that the increase in beneficiaries are not independent of labour market conditions. According to a recent study, concealed unemployment amongst participants amounted to about 140,000 man-years in 1978 and may have increased to over 150,000 in 1979.

2. COSTS AND PRICES

(i) Wage rates, earnings and unit labour costs

In the first three quarters of 1979 the average growth of *nominal hourly earnings* in west European manufacturing industry was about 8 per cent, a slight acceleration on the average rate in 1978. The changes for individual countries are generally small, the main exceptions being Norway, where the growth of earnings fell sharply under the impact of a price and wages freeze, Sweden, and Finland where there was a rapid acceleration in the first half of the year (table 2.1). Inter-country differences in the growth of earnings are large, ranging in the third quarter of 1979 from some 3 per cent in Switzerland to 20 per cent in Italy. In Norway the incomes policy has been largely responsible for reducing the growth rate from some 6 per cent at the beginning of the year to just over 1 per cent in the third quarter. For those countries where the data are available there was a general tendency for the rate of growth to slacken somewhat in the third quarter.

Real earnings in the first half of 1979 were generally rising faster than in 1978 (table 2.2), but there was a sharp deceleration in the third quarter as nominal earnings growth slowed down at the same time as inflation was beginning to accelerate sharply under the impact of earlier increases in oil and other commodity prices. Real earnings growth in the third quarter was zero in the Federal Republic of Germany and negative in Denmark, Norway, Sweden, Switzerland, the United Kingdom and the United States.

For a number of west European countries productivity improved quite sharply in 1979, but there were large differences between countries and between the manufacturing and non-manufacturing sectors. In North America, Ireland and the United Kingdom there was a marked deterioration in productivity growth for the economy as a whole. These differences in productivity growth are reflected in a significant widening in 1979 of inter-country differences in unit labour cost changes. For the whole economy unit labour costs rose faster than in 1978 in six of the thirteen countries in table 2.3, considerably more in Italy and the United Kingdom but more marginally in the others. In contrast, unit costs decelerated in the Federal Republic of Germany and in six of the smaller economies. The data for manufacturing alone are incomplete but they suggest a more favourable evolution of unit labour costs than for the economy as a whole: in the first three quarters of 1979 they probably fell or

TABLE 2.1

Annual and quarterly changes in average hourly earnings in manufacturing industry

(Percentage change over corresponding period of previous year)

			1978				*1979*		
Country	*1977*	*1978*	*Q1*	*Q2*	*Q3*	*Q4*	*Q1*	*Q2*	*Q3*
Austria [a]	8.5	5.7	8.0	2.7	5.8	6.7	6.7	5.9	4.7
Belgium [b]	9.2	6.9	8.3	6.9	6.1	6.6	5.9	8.6	7.5
Denmark [c]	10.3	10.4	11.9	10.1	9.7	10.0	9.7	10.4	11.2
Finland [b]	8.9	7.4	9.3	5.3	5.8	9.3	12.1	14.5	..
France [d]	12.7	12.9	12.4	12.4	13.5	13.4	12.9	13.4	12.3
Germany, Fed. Rep. of [e]	7.5	5.1	5.2	5.0	5.2	5.1	6.2	5.8	4.8
Ireland [f]	15.6	14.3	13.1	15.4	15.2	13.4	14.3	..	..
Italy [g]	27.9	16.2	19.7	16.2	14.6	14.9	15.7	17.0	20.4
Netherlands [g]	7.3	5.7	7.6	6.4	4.5	5.0	4.3	4.3	4.8
Norway [h]	11.5	7.7	9.5	6.4	8.3	6.3	5.6	4.2	1.2
Sweden	6.7	8.7	9.5	10.4	9.2	6.0	6.6	9.3	7.4
Switzerland [i]	2.1	2.9	2.5	3.0	2.5	3.7	3.1	3.4	3.1
United Kingdom [j]	10.3	14.6	11.8	15.5	16.0	15.0	14.7	15.4	13.8
Canada	10.8	7.2	8.3	6.8	6.7	7.0	7.8	9.0	8.8
United States	9.3	8.5	8.8	8.6	8.5	9.1	8.9	8.7	8.6

Sources: National statistics and OECD, *Main Economic Indicators*, Paris.

[a] Monthly earnings of wage-earners in total industry.

[b] Industry.

[c] Including mining and quarrying.

[d] Wage rates. Quarterly data, referring to the beginning of January, April, July and October respectively. Annual figures are obtained by averaging the five observations from January of one year to January of the following year. From 1978 new index, 1977 = 100.

[e] Quarterly data, referring to January, April, July and October.

[f] Quarterly data, referring to March, June, September and December.

[g] Wage rates.

[h] Males only.

[i] Data refer to workers who had accidents during the relevant period.

[j] Weekly earnings (all employees), Great Britain.

remained unchanged in Austria, the Netherlands, Norway and Sweden, while there was a sharp acceleration on the 1978 rate of increase only in Canada and Finland.

A comparison of changes in real earnings with changes in productivity in manufacturing (tables 2.2 and 1.11) indicates that the real product wage of labour probably fell in most countries in the first three quarters of 1979.[23] (It rose slightly in Finland and the United Kingdom.) This suggests some further improvement in gross profit margins (there was a moderate rise in 1978 also), due perhaps in part to a faster rate of pass-through of higher input costs to final output prices. This latter development will have been assisted in several countries by the easing or abolition of price controls. However, the improvement in margins may well have slowed down or even been reversed in the last quarter of 1979 in the face of weakening demand and continuing pressure on costs from oil and other raw material prices.

CONSUMER PRICES

In western Europe consumer price inflation had fallen sharply and continuously from an average[24] of 10 per cent a year at the beginning of 1977 to about 6 per cent in the last quarter of 1978, the lowest year-on-year rate of change since the first quarter of 1971 (chart 2.1). However, by the last quarter of 1979 the average rate of inflation had risen to just over 9 per cent.

There were already signs towards the end of 1978 that the period of declining inflation rates would come to an end in 1979. Non-oil commodity prices, particularly metals, were strengthening in the last quarter of 1978 partly in response to growing demand in Europe and the unexpected continuation of buoyant demand in the United States. Rising raw material costs were also affected for some countries by a strengthening of the dollar towards the end of 1978, a result of increasing domestic monetary restriction (the Volcker measures) as well as support by certain foreign central banks. These developments[25] plus the December increase in the OPEC oil price and a rise in food prices due to an exceptionally hard winter in Europe led to a general expectation of an acceleration of prices in the first quarter of 1979 with perhaps some slowing down in the latter part of the year. For the year as a whole the expectation was for an average rate of increase in western Europe of just under 7 per cent, which was little different from that in 1978. It was recognized that this might be too optimistic: the effects of the December oil price rise had still to work through to final prices and there was increasing uncertainty concerning oil supplies due to the situation in Iran. A major risk was that the acceleration of prices in the first quarter, particularly of food prices, would renew the wage-price spiral as wage and salary-earners sought to preserve real incomes. In the event this did not occur on any large scale. Except in Italy and Finland there was no sharp acceleration in the growth of nominal wages in manufacturing (table 2.1), at least in the first three quarters of 1979,

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[23] This is based tentatively on provisional data for productivity and incomplete data for earnings, not the firmest of foundations.

[24] The arithmetic mean for the 13 west European countries given in table 2.4.

[25] Price expectations, as revealed in business surveys, began to deteriorate from mid-1978. See *Economic Survey of Europe in 1978*, part I, chart 4.4.

TABLE 2.2

Changes in real average hourly earnings in manufacturing industry

(Percentage change over corresponding period of previous year)

			1978				*1979*		
Country	*1977*	*1978*	*Q1*	*Q2*	*Q3*	*Q4*	*Q1*	*Q2*	*Q3*
Austria [a]	2.8	2.0	3.9	−0.9	2.3	3.2	3.0	2.6	1.1
Belgium [b]	2.0	2.3	2.6	2.3	2.0	2.6	2.0	4.3	2.7
Denmark [c]	−0.7	0.3	−0.7	−0.7	0.1	2.6	2.6	2.3	−0.6
Finland [b]	−3.3	−0.4	−0.2	−2.9	−0.9	2.4	4.8	6.9	3.7
France [d]	3.0	3.5	2.9	3.1	3.8	3.6	2.5	3.0	1.4
Germany, Fed. Rep. of [e]	3.5	2.4	2.0	2.2	2.7	2.8	3.2	2.3	—
Ireland [f]	1.8	6.2	4.5	8.7	6.5	5.1	3.2	—	—
Italy [g]	8.0	3.7	6.0	3.7	2.4	3.0	2.5	3.0	4.9
Netherlands [g]	0.8	1.5	2.9	2.8	0.4	0.9	0.1	0.1	0.9
Norway [h]	2.2	−0.4	0.6	−1.3	0.5	−1.7	0.2	−0.9	−3.0
Sweden	−4.2	−1.2	−3.6	−0.5	0.8	−1.4	0.8	3.0	−0.2
Switzerland [i]	0.8	1.8	1.4	1.6	1.5	3.1	1.2	0.3	−1.2
United Kingdom [j]	−4.7	5.8	2.1	7.2	7.6	6.4	4.7	4.3	−1.9
Canada	2.6	−1.7	−0.5	−1.9	−2.4	−1.6	−1.2	−0.3	0.9
United States	2.6	0.7	2.1	1.4	0.5	0.1	−0.9	−1.8	−2.9

Source and foot-notes: as for table 2.1.

Note: The change in real earnings is the change in money earnings deflated by the corresponding change in the consumer price index.

although the relatively fast growth of service prices in most countries in the first half of the year suggests a faster rate of growth of non-manufacturing earnings. Moreover, productivity growth in 1979 was better than expected in many countries. The sharp deterioration in consumer price inflation was due in large measure to a much faster rise than expected in non-oil commodity prices and a series of large increases in the nominal price of crude oil. Between December 1978 and June 1979 the UNCTAD index of dollar commodity prices rose 14.5 per cent, and in June the OPEC agreed on a further sharp rise in the price of crude oil. However, the major influences on crude prices were continuing strong demand, and actual and feared restrictions on output. Although the rate of increase of non-oil commodity prices was slowing down in the latter half of the year, the UNCTAD index was still 19 per cent higher than in the previous year.

Some indication of the relative importance of external factors is given in table 2.5. In all the eight countries for which the data are available, the price of imported goods and services rose more than the implicit deflator of total final expenditure, and in Austria, Finland, the Federal Republic of Germany, the Netherlands and Sweden, accounted for more than half of the total increase. Again the relatively restrained growth of wages can be seen for most countries, and particularly in Austria and Norway: in all of them except the United Kingdom the contribution of employees' compensation was less than its weight in total final expenditure. (In the United Kingdom the policies of the new Government included the abandonment of the previous Government's 5 per cent norm for wages and a major shift from direct to indirect taxes.) However, although higher import prices made a major contribution to the rise in prices, domestic factors were still significant and in France, Norway and the United Kingdom of greater importance. The latter is also probably true for Ireland and Italy, which could not be included in table 2.4.

TABLE 2.3

Unit labour costs [a] for the whole economy

(*Percentage change over previous year*)

Country	*1977*	*1978*	*1979* [b]
Austria	6.4	6.7	1
Belgium	8.0	4.7	4
Denmark	8.2	8.4	7.5
Finland	7.6	4.6	6.5
France	9.8	9.1	9.5
Germany, Federal Republic of	4.1	3.0	2.5
Ireland	11.3	9.0	9.5
Italy	19.8	12.6	15
Netherlands	5.9	5.3	4
Norway	9.1	5.6	6
Sweden	15.8	8.0	7
Switzerland	0.1	4.6	2.5
United Kingdom	8.9	10.2	15
Canada	7.7	5.5	8
United States	6.1	8.5	9.5

Source: National statistics.

[a] Compensation of employees per unit of real GDP or GNP.

[b] Preliminary figures and secretariat estimates rounded to nearest 0.5 percentage point.

TABLE 2.4

Annual and quarterly changes in consumer prices, 1977-1979

(*Percentage change over corresponding period of previous year*)

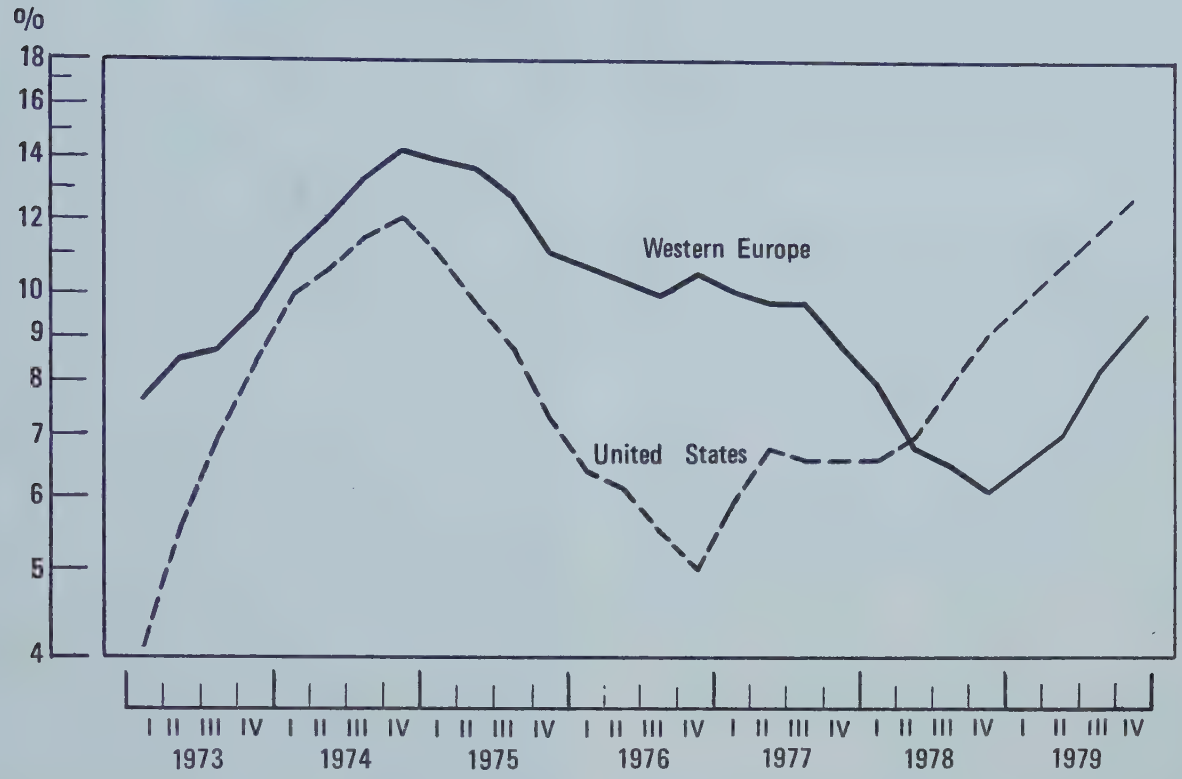
Country	*1977*	*1978*	*1979*	*1978*				*1979*			
				Q1	*Q2*	*Q3*	*Q4*	*Q1*	*Q2*	*Q3*	*Q4*
Austria	5.5	3.6	3.6	3.9	3.6	3.4	3.4	3.6	3.2	3.6	3.9
Belgium	7.1	4.5	4.5	5.6	4.5	4.0	3.9	3.8	4.1	4.7	5.1
Denmark	11.1	10.1	9.6*	12.7	10.9	9.6	7.2	6.9	7.9	11.9	11.6*
Finland	12.6	7.8	7.5	9.5	8.5	6.8	6.7	7.0	7.1	7.5	8.0
France	9.4	9.1	10.5	9.2	9.0	9.3	9.5	10.2	10.1	10.8	11.5
Germany, Fed. Rep. of	3.9	2.6	4.1	3.1	2.7	2.4	2.2	2.9	3.4	4.8	5.3
Ireland	13.6	7.6	13.2	8.2	6.2	8.2	7.9	10.8	12.4	13.6	16.0
Italy	18.4	12.1	14.7*	12.9	12.1	11.9	11.6	12.9	13.6	14.8	17.5*
Netherlands	6.4	4.1	4.2	4.6	3.5	4.1	4.1	4.2	4.2	3.9	4.6
Norway	9.1	8.1	4.8	8.9	7.8	7.8	8.1	5.4	5.1	4.3	4.5
Sweden	11.4	10.0	7.2*	13.6	10.9	8.3	7.5	5.8	6.1	7.6	9.3*
Switzerland	1.3	1.1	3.6	1.1	1.4	1.0	0.6	1.9	3.1	4.4	5.1
United Kingdom	15.8	8.3	13.4	9.5	7.7	7.8	8.1	9.6	10.6	16.0	17.3
West European average (unweighted)	9.7	6.8	7.7	7.9	6.8	6.5	6.2	6.5	7.0	8.3	9.2
Canada	8.0	9.0	9.1*	8.8	8.9	9.3	8.7	9.1	9.3	8.7	9.3*
United States	6.5	7.7	11.3	6.6	7.1	8.0	9.0	9.9	10.7	11.8	12.7

Source: National statistics.

CHART 2.1

The average quarterly rate of inflation in 13 west European countries and in the United States, 1973-1979

(Percentage increase over same quarter of previous year)



Sources: Table 2.4 and previous issues of this *Survey.*

TABLE 2.5

Components of the change in "total" prices in 1979

Country	Change in "total" prices [a] (per cent)	of which, *due to:* [b]			
		Compensation of employees	*Gross operating surplus*	*Indirect taxes less subsidies*	*Imports of goods and services*
Austria	3.7	−0.1	1.5		2.3
Finland	9.7	1.9	2.5	0.3	5.0
France	9.7	4.6	3.2		1.9
Germany, Federal Republic of	4.6	0.7	1.0	0.4	2.5
Netherlands	6.4	1.4	1.2	0.2	3.6
Norway	7.0	0.8	3.8	0.3	2.1
Sweden	7.9	2.0	1.7		4.2
United Kingdom [c]	9.8	5.6	−1.1	1.7	3.6

Source: Basic data as for appendix table.

[a] The implicit price deflator of total final expenditure; percentage increase over 1978.

[b] The calculation is based on 1978 weights in total final expenditure. The component contributions refer to the costs of each component per unit of total final expenditure at constant prices.

[c] January-June 1979 over same period in 1978.

The acceleration of consumer price inflation throughout 1979 occurred in all countries except Norway, and including Denmark and Finland where the average annual rate of increase was below that of 1979. In Norway a stringent price freeze was in operation throughout the year. It is noticeable that the acceleration in the rate of inflation was greater, on average, for the "low inflation" group of countries (Austria, Belgium, the Netherlands, the Federal Republic of Germany and Switzerland) than for the "high inflation group":

Average rates of inflation in two groups of west European countries, 1978-1979

	Group I [a]		*Group II* [b]		*Total*	
	Mean	*SD*	*Mean*	*SD*	*Mean*	*SD*
1978						
Q1	10.6	2.1	3.7	1.7	7.9	4.0
Q2	9.1	2.0	3.1	1.2	6.8	3.5
Q3	8.7	1.6	3.0	1.3	6.5	3.2
Q4	8.3	1.6	2.8	1.5	6.2	3.1
1979						
Q1	8.6	2.7	3.3	0.9	6.5	3.5
Q2	9.1	3.0	3.6	0.5	7.0	3.6
Q3	10.8	4.1	4.3	0.5	8.3	4.5
Q4	11.9	4.7	4.8	0.6	9.2	5.1

Source: Table 2.4.

[a] West European countries in table 2.4 other than those in Group II.

[b] Austria, Belgium, the Netherlands, the Federal Republic of Germany and Switzerland.

This slight narrowing of the difference between the group averages, which still remains very large, however, is partly due to the greater exchange rate stability between the dollar and some of the harder European currencies. Partly as a result of their own support operations in favour of the dollar in 1978, the Federal Republic of Germany and Switzerland lost some of the benefit in 1979 of falling import prices (in terms of domestic currency). Also some of the smaller countries, such as Switzerland, tend to be heavily dependent on the Rotterdam spot market for their oil imports and this tends to both amplify and speed up the effect of changes in OPEC prices on domestic price levels. The difference between the average inflation rate in Europe and that in the United States narrowed slightly through 1979 but it still remains large, while the difference between the United States and the European "low inflation" group actually widened in the last quarter.

Of the various components of the consumer price indices, fuel and light and gasoline prices have of course risen relatively sharply and in some cases have had a large direct effect on the over-all rise in prices. Table 2.6 shows the contribution of fuel and light to have been particularly large (in relation to its weight in the indices) in the Federal Republic of Germany, France, Switzerland, Sweden, Denmark and Austria. The much smaller contribution elsewhere is due in large measure to controls either on the prices of oil products or on competing products such as gas and electricity. In the United Kingdom the policy of the new Government is to secure a more integrated price structure for all energy products which would imply that changes in fuel and light prices in future would tend to move more in line with changes in oil product prices.

TABLE 2.6

Changes in the price of fuel and light and their contribution to the total rise in consumer prices

(*Percentages*)

Country	*Weight of "fuel and light" in total CPI*	*Increase over previous year*						*Contribution to rise in consumer price index*				
				1979					*1979*			
		1978	*1979*	*Q1*	*Q2*	*Q3*	*Q4*	*1979* [a]	*Q1*	*Q2*	*Q3*	*Q4*
Austria	5.3	2.4	6.7	4.2	3.1	9.0	10.5	9.1	5.9	5.0	12.8	12.5
Denmark	5.4	10.2	39.2	9.5	22.1	59.3	64.5	19.4	7.5	14.7	25.9	29.3
Finland	3.5	6.4	7.5	1.8	4.5	9.5	14.1	3.3	0.9	2.2	4.3	5.9
France	8.6	8.7	16.0	13.7	15.0	15.9	19.0	14.6	12.9	14.3	14.8	16.2
Germany, Federal Republic of	4.6	2.9	21.8*	12.9	20.8	27.8	25.3*	28.2*	24.1	31.6	31.4	25.5*
Ireland	5.9	3.6	..	0.6	6.0	..	..	..	0.3	2.9	..	..
Italy	3	11.3	18.5	8.8	9.6	19.0	35.8	3.6	2.1	2.2	4.0	6.2
Netherlands	3.9	9.9	7.0	11.2	3.9	5.9	7.4	7.4	11.5	4.2	6.7	7.0
Norway	3.5	20.7	10.1	14.7	17.1	4.9	6.9	9.0	10.9	13.3	5.0	6.6
Sweden	5.1	14.3	20.8	8.9	14.5	27.5	31.9	14.8	8.3	12.7	19.5	18.6
Switzerland	4	−7.7	51.5	22.8	50.1	71.8	62.5	52.2	45.1	60.3	58.1	45.3
United Kingdom	5.9	7.7	10.1	6.2	5.6	11.4	16.9	4.9	4.4	3.5	4.9	6.6
Canada	3.3	12.3	9.3	11.2	8.3	8.6	9.3	4.3	5.2	3.8	4.1	4.2
United States	6.5	6.8	11.3	6.2	8.0	13.3	17.7	7.0	4.6	5.4	8.1	9.8

Source: National statistics; OECD, *Main Economic Indicators*, Paris.

[a] Average of quarterly data.

As is clear from table 2.6 the rise in oil prices was by no means the only source of higher prices in 1979. In the first half of the year food prices were generally rising faster than average (particularly in the first quarter) as were services, rents and housing costs. The latter increases probably reflect a certain degree of "catching up" with previous rates of inflation, particularly in services, while higher rents and housing costs are due in part to a relaxation in controls (France and Italy for example) and to higher interest rates (particularly in the United Kingdom). Government policies have also contributed to higher levels of consumer prices. The greater emphasis on monetary policy as a means of restoring internal and external balance has led to a general relaxation of incomes policies and price controls,[26] although wage and price freezes have recently been used on a short-term basis in Denmark and for 15 months (ending in December 1979) in Norway. A major change in this direction occurred in France in 1978 when industrial prices were freed from control and subsidies to public enterprises were greatly reduced. This change in policy did not lead to as sharp an acceleration as had been feared, but the worsening of inflation in the first half of 1979 has led to the postponement of the abolition of the remaining price controls on service and other non-industrial prices. In 1979 the most prominent change in policy took place in the United Kingdom where the new Government abolished the previous Government's incomes norm and price controls. There has been some acceleration in the rate of wage settlements but since the 5 per cent wage norm had already been considerably undermined it was not particularly dramatic; and the abolition of the Price Commission did not in itself lead to a sharp rise in retail prices since competitive pressures on industry were already making it difficult to raise final product prices. However, in its June budget the British Government announced a major shift from direct to indirect taxation, and the rise in value added tax is estimated to have added some 3½-4 percentage points to the retail price index. The data in table 2.5 indicate that the change in indirect taxes less subsidies contributed 17 per cent of the total rise in prices in the first half of the year; the higher value added taxes will therefore be additional to this latter contribution. It is thus an apparent paradox of policy in several countries, but which perhaps may be seen most clearly in the United Kingdom, that the immediate effect of current efforts to reduce inflation in the medium term is to increase the rate of growth of consumer prices in the short run. At the same time tight monetary policies are being imposed, the rationale being that the parties to the wage-bargaining process will eventually scale down the level of wage settlements when they perceive that excessive increases will lead only to unemployment. The commitment of Governments to reducing inflation and to the use of monetary targets as a means of doing so has become stronger over the past year. The consequences for employment and the immediate outlook for inflation will then depend, it is argued, on whether wage settlements exceed the target for the growth of money supply. If they do, then Governments will have to choose between accepting higher unemployment, employing alternative policies to restrain the growth of incomes, or revising their money supply targets. This choice will not arise for all countries: recent wage settlements in the Federal Republic of Germany, for example, are consistent with the official money target. In the United Kingdom, where the rise in wage settlements appears to be well above the target range for monetary growth, the Government is opposed to any resort to incomes policy. Elsewhere there are signs that greater recourse to income policies may be made in 1980. In Denmark the Government introduced a temporary prices and incomes freeze towards the end of 1979 while it formulated an incomes policy for 1980: this intends to ban all new wage increases until March 1981 and to modify the wage indexation system. In the Netherlands a two-month wage freeze was imposed in January 1980 while the Government draws up a programme to deal with the situation following the failure of the employers and unions to agree to a voluntary standstill. Norway, like the other Scandinavian countries, has not relied on strict adherence to monetary targets as the principal means of reducing inflation. Instead it has implemented a 15 month freeze on prices and incomes (which ended at the end of December 1979) and this has been successful in reducing the inflation rate to 4.5 per cent and improving international competitiveness. However, its longer-run success will depend on whether wage settlements are moderate after two years of declining real earnings.

(ii) The real costs of petrol and private transport, 1972-1979

After an initial fall following the rise in crude oil prices in 1973-1974, per caput consumption of petrol (gasoline) has been rising in most west European countries, albeit in many cases at a somewhat slower pace than in the 1960s. Until quite recently this appears to have surprised many commentators. Policies to reduce consumption have been largely hortatory, urging consumers of private transport to drive more slowly, to switch to more fuel-efficient motor cars, to switch to less energy-intensive (per passenger kilometre) public transport, and so forth. In a few cases direct action has been taken, mainly in the form of lowering speed limits. In North America mandatory fuel efficiency standards for motor cars have been set, and in western Europe some Governments have begun to subsidize research and development activity designed to produce more fuel-efficient motor car engines. However, in the last year or so there has been growing awareness of the fact that the *real* price of petrol has not increased very much over the last six to seven years and that in comparison with the peak levels of 1974-1975, it has actually been falling in many countries.

In its annual review of 1978, the International Energy Association (IEA) concluded that effective energy conservation policies had been impaired as "energy prices continue to be at levels that do not adequately encourage conservation".[27] The IEA observed that it has proved more difficult, in general, to implement energy conservation programmes in the transport sector than in all others, although the sector is seen as having "considerable scope for improvement, particularly with respect to automobile efficiency standards, the improvement of public transport and, in some instances, gasoline pricing and progressive taxation on cars according to their fuel efficiency".[28] The IEA is strongly in favour of taxation and price incentives as the key elements in a successful conservation strategy. Although it notes that "Governments are reluctant to allow energy prices to increase or to impose energy taxes because of the effect on domestic inflation" it concludes that "such reluctance will weaken the IEA's energy conservation strategy".[29] This view is now shared by a number of IEA member countries: for example, the Under-Secretary of State at the Department of Energy in the United Kingdom has stated his Government's view that pricing is the key element in the Government's energy policy and that "prices should... give both consumer and producer reasonably accurate signals about the cost of energy".[30] There is widespread agreement that the consumer should no longer be protected from rising energy costs and that Governments should make efforts to ensure that the rise in relative prices is maintained. The question of energy conservation in general and the reduction in oil imports from OPEC countries in particular has acquired greater urgency in view of the failure of most IEA members to meet their targeted cuts in oil consumption in 1979 and their commitment to detailed net import targets for crude and oil products in 1980.

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[26] For a general discussion see *Economic Survey of Europe in 1978*, part I, pp. 23-24.

[27] International Energy Association, *Energy Policies and Programmes of IEA Countries—1978 Review*, OECD, Paris, 1979, p. 14.

This section discusses certain aspects of energy pricing in the transport sector which accounts, on average, for about a third of total consumption of petroleum products in the industrial market economies. However, since the purpose is to illustrate certain problems facing policy (which are discussed in more detail in section 4 (iv) below), the narrow sectoral focus is not in fact very limiting. More precisely the discussion concerns the actual price signals which have been reaching consumers in the recent past and whether and how Governments can change these (and make the changes stick). There is no discussion of the actual consumption changes that have occurred, nor is there any attempt to specify and estimate demand functions for petrol or for private and public transport.

THE REAL PRICE OF PETROL 1972-1979

Table 2.7 summarizes annual changes in the real price of petrol between 1972 and 1979 for a selection of countries for which the relevant data were separately specified in their national consumer price indices.

The real price rose sharply in 1974 and 1975 but thereafter tended to fall until (and including) 1978, when it was about 10 per cent below its 1974 or 1975 peak in Austria, the Federal Republic of Germany, Italy and Switzerland; in the United Kingdom the real price was more than a quarter below the 1975 level, while in Sweden it was 6 per cent below the peak of 1974. Only in France was the 1978 price at roughly the same level as in 1974.

Petrol prices rose sharply in 1979 but in most cases the relative price (at least in the first three quarters) was still below the peaks of 1974 and 1975, substantially so in Italy; only in France and Sweden were they marginally (2-3 per cent) higher. Compared with the antediluvian period of 1972-1973, real prices in 1979 were generally some 11 to 20 per cent higher. The large inter-country differences in the rate of change are due to many factors of which differential movements in foreign exchange rates, and in domestic tax rates are probably among the most important. Price controls were also important in a number of countries in the aftermath of 1974-1975 and these were often used both to slow down the rate at which the increase in crude prices was passed on to final products and to secure a differential impact on final product prices for social reasons. However these differences among countries are less important for the purposes of this note than the broad similarity in the time trends.

A noticeable feature of the indices of real petrol prices is the large degree of annual fluctuation which they exhibit between 1973 and 1979.[31] Not only the annual (year-on-year) rate of change but also the direction of change is highly variable. The only country among those listed in table 2.7 where the annual change in the real price had the same *sign* for three consecutive years is the United Kingdom, where it was *negative* between 1976 and 1978 (inclusive). This high degree of annual fluctuation in real petrol prices is clearly important in any discussion of whether the "price signals" to consumers are likely to be effectual in securing allocative adjustments.

Taxes and duties on petrol are, in most west European countries, specific rather than *ad valorem*, as is the case also with motor vehicle taxes and licences. Frequent adjustment of such taxes is often administratively inconvenient while periodic changes, being highly visible, are usually politically unpopular. Thus with high rates of inflation the real burden of such taxes tends to fall sharply. The text table on the next page demonstrates this in the case of retail petrol prices for members of the European Economic Community. The proportion of the final sales price taken by tax has fallen sharply in most countries between 1973 and 1979. The movement has been significantly checked in recent years only in Denmark and, to a lesser extent, in France. Comparing 1 January 1973 and 1 January 1979, the rise in retail petrol prices including tax averaged about 13 per cent for the eight countries shown, but excluding tax the average increase was 52 per cent. The use of specific rather than *ad valorem* duties has therefore had an important effect in restraining the rate of growth of petrol prices paid by the final consumer.

THE REAL PRICE OF PRIVATE TRANSPORT 1972-1979

Since the demand for petrol is only derived from the demand for private motor vehicle services, the relevance of the price of petrol relative to the total consumer price index depends on it being a valid proxy for the real costs of running a private motor vehicle. The use of such a proxy in econometric analyses of the demand for petrol is widespread, but it involves two implicit assumptions: (*a*) that the price of petrol and the other costs of running a private vehicle move together over time, and (*b*) that

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[28] *Op. cit.*, p. 14.

[29] *Op. cit.*, p. 19.

[30] Department of Industry, *British Business*, London, HMSO, 2 November 1979, p. 193.

[31] The standard deviation of the annual (year-on-year) change ranges from 2.5 to 4.7 times the mean annual change between 1973 and 1979 (for the countries for which the data are given in table 2.7).

TABLE 2.7

The retail price of petrol relative to the consumer price index

(1972 = 100) [a]

Country	*1973*	*1974*	*1975*	*1976*	*1977*	*1978*	*1979 (I-IX)*
Austria	101.8	133.3	126.2	129.8	123.7	119.6	121.8
Denmark [b]	..	..	100	102.8	101.6	97.5	106.3
France	96.7	119.9	111.7	110.6	118.8	118.8	122.7
Germany, Federal Republic of	105.0	118.1	110.7	113.7	106.4	106.6	110.6
Italy	94.4	126.8	121.0	140.1	147.1	131.1	119.2 [d]
Sweden	102.2	114.0	111.0	112.9	104.4	106.9	116.9
Switzerland	96.1	112.2	106.8	108.2	104.0	99.5	111.5 [e]
United Kingdom [c]	97.5	117.8	126.4	115.4	106.3	92.9	108.4 [f]

Source: National consumer price indices.

[a] National indices of various base-weight years converted to same reference base. There is some variation in national definitions in that some countries include motor oil with petrol and others do not.

[b] 1975 = 100.

[c] Deflator of consumers' expenditure.

[d] January-August.

[e] January-October.

[f] Estimates based on retail price index for January-November (detailed table as given in Department of Employment, *Employment Gazette*, London, HMSO: monthly).

the price of public and other means of transport increases at the same rate as the total consumer price index.[32]

Table 2.8 shows for a number of countries an index of the costs of running a private motor vehicle deflated by the consumer price index.[33] The broad trends are similar to those of the petrol price indices: a sharp rise in the real price in 1974 or 1975 followed by a decline to 1978 and then an upturn in 1979. France and Sweden are exceptional in that there has been a steady rise in the real cost of private transport since 1976 and 1977 respectively, while in Austria the weakening after the sharp rise in 1974 has been small. However it is clear from a comparison of tables 2.7 and 2.8 that the two series do not move together very closely: the annual changes are often very different and there is little evidence of a coherent lag structure between changes in petrol prices and non-petrol motor costs. Indeed, it appears that the movement of non-petrol costs has tended to dampen fluctuations in the petrol price: total motoring costs have risen (fallen) less than annual increases (decreases) in petrol prices. The coefficient of variation about the average (year-on-year) change between 1972 and 1979 is greater for the petrol price than for the total cost of private transport in Italy, Sweden, Austria, the United Kingdom and France; the reverse is true in the Federal Republic and Switzerland, but in these countries the average annual increase in the real cost of private transport has been marginal (± 0.1 per cent).

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[32] Insofar as private motoring is a pure leisure activity, the latter assumption also implies that the price of leisure substitutes rises in line with the total consumer price index.

[33] The definition of these costs is not internationally comparable, but the focus of attention here is on changes over time in each country.

Ratio of index of retail petrol prices including tax to index of retail petrol prices excluding tax

(1970 = 100)

	1973	*1974*	*1975*	*1976*	*1977*	*1978*	*1979*
Belgium	127.6	98.7	72.3	66.8	65.7	74.1	67.8
Denmark	85.5	87.0	84.9	94.0	96.6	107.2	105.8
France	88.7	78.0	57.7	55.6	63.7	63.5	80.2
Germany, Federal Republic of	101.3	82.1	72.6	70.1	69.0	69.5	66.3
Italy	94.1	73.5	68.1	61.7	77.8	77.4	77.4
Ireland	97.4	75.3	78.0	65.1	69.9	70.4	72.3
Netherlands	115.3	82.3	89.2	75.5	79.4	81.6	75.0
United Kingdom	82.1	60.7	55.8	54.0	53.6	53.5	54.8

Source: Commission of the European Communities, *European Economy*, November 1979, table 10.5.

TABLE 2.8

The running cost of private vehicles relative to the consumer price index

(1972 = 100) [a]

Country	*1973*	*1974*	*1975*	*1976*	*1977*	*1978*	*1979 (I-IX)*
Austria	102.5	116.5	114.4	115.5	115.6	114.4	114.9
Belgium [b]	103.3	107.7	109.4	110.0	107.7	107.8	..
Denmark [c]	97.1	99.6	96.2	95.4	96.9	98.2	101.4
Finland	100.9	108.1	101.4	104.5	105.4	106.5	105.4 [d]
France	97.4	106.0	104.4	105.2	107.5	110.0	112.8
Germany, Federal Republic of	100.5	103.1	98.5	98.3	96.8	97.2	99.3
Italy	100.7	120.0	118.0	130.7	135.3	128.2	125.0 [e]
Sweden	99.4	104.8	105.7	112.1	110.6	114.2	118.2
Switzerland	99.5	103.9	99.0	99.0	97.1	95.7	99.3 [f]
United Kingdom [b]	99.1	108.3	113.6	107.8	105.7	99.4	108.3 [g]

Source: As for table 2.7.

[a] For most countries the above index was constructed by the secretariat by weighting together relevant individual components of the national consumer price indices. National indices of various base years were converted to the 1972 reference base. The coverage and definition of "running costs of private transport" are not internationally comparable.

[b] Deflators of consumers' expenditure.

[c] 1973 and 1974 estimated by secretariat. Up to 1974 the official index does not separate the cost of running vehicles from the (capital) cost of new cars.

[d] Based on official estimates for the year.

[e] January-August.

[f] January-October.

[g] As for foot-note *f* in table 2.7.

TABLE 2.9

Change in selected components of the running cost of private vehicles

(Percentage change over previous year)

Country	*1973*	*1974*	*1975*	*1976*	*1977*	*1978*	*1979*
Austria							
Petrol	9.5	43.4	2.6	10.4	0.7	0.1	5.1
Repairs	13.9	19.2	18.3	6.4	8.4	4.2	5.3
Insurance and tax	8.4	13.7	1.4	8.0	8.3	3.1	0.8
Germany, Federal Republic of							
Petrol	12.3	20.2	−0.7	7.3	−2.6	2.7	7.7
Repairs	9.0	9.4	7.2	6.1	5.7	6.6	6.2
Insurance	5.3	2.3	−3.3	0	10.1	1.1	8.3
Tax	0	0	0	0	0	0	0
Sweden							
Petrol	9.1	22.7	6.8	12.2	2.9	12.8	17.2
Repairs	4.2	11.3	14.3	22.9	16.5	14.8	6.4
Switzerland							
Petrol	4.5	28.2	1.5	3.1	−2.5	−3.4	15.7
Repairs	13.7	9.7	8.1	3.5	2.2	2.9	2.3
Insurance	16.9	1.3	−7.0	0	0	3.0	3.2
Tax	7.8	3.6	0	0.7	3.0	0	0
United Kingdom [a]							
Petrol	6.0	41.7	32.6	5.5	6.0	−5.4	32.3
Taxes	0.1	0.3	39.3	14.3	18.4	5.4	0
Other	13.1	17.2	22.1	16.5	22.0	12.2	15.2

Source: National consumer price indices. The definitions of the components are not necessarily comparable between countries.

[a] Deflators of consumers' expenditure, except for 1979 which are based on changes in retail prices for January-November over same period of 1978.

For the countries discussed here the rise in the real cost of private transport has been relatively small and in general the average annual change between 1972 and 1979 has been less than the average increase in the real price of petrol: the exceptions are Italy, where private transport costs rose more than the real petrol price, and Sweden where they have risen more or less in line. In the Federal Republic and Switzerland private motoring in the first three quarters of 1979 was slightly less expensive, in real terms, than it was in 1972; and for most of the other countries (Italy excepted) the average annual increase has been less than 2½ per cent a year. Comparing only the changes between the end years of 1972 and 1979, the real cost of private transport still rose much less than that of petrol in all countries except Italy and Sweden (where it rose more than the petrol price) and the United Kingdom (where the increases were about the same).

This is somewhat unexpected insofar as the non-petrol costs of running a private car refer largely to service inputs, namely, repairs and maintenance, and insurance. Productivity growth in services is generally thought to rise less than that in the manufactured-goods sector and, given that differences in the growth of wages are also observed to be much less than differences in productivity growth, the general expectation is that there will be an underlying tendency for the prices of services to rise faster than those for goods. By applying this argument to the private transport sector alone the expectation would be that total costs would tend to rise *faster* than the price of petrol alone.

A detailed analysis of the components of private motoring costs is not really possible on the basis of consumer price indices as published but the available detail for five countries suggests that the preceding argument has some validity. The price indices for repairs[34] (table 2.9) have generally risen faster than those for petrol —and since spare parts are usually included in repairs, the rise in the actual price of repair and maintenance services is probably understated. However, the rise in petrol and repair costs has tended to be offset, in relative terms, by insurance premiums and by motor vehicle and other taxes. (In the Federal Republic of Germany and Switzerland these two items carry a weight in the consumer price indices of just over a quarter of the total running costs of running a motor vehicle. The weight of vehicle taxes is about 10 per cent of total costs in the Federal Republic, Switzerland, and the United Kingdom.)

THE IMPORTANCE OF PETROL IN TOTAL PRIVATE MOTORING COSTS

In the national consumer price indices used here, and for those countries where petrol is distinguished from other costs, the importance of petrol in total running costs of private vehicles ranges from 35 to 38 per cent in the Federal Republic of Germany, Austria and France, to 44-46 per cent in Switzerland and Denmark, and to 53 per cent in the United Kingdom. Little importance should be attached to these differences since they are obviously affected by differences in definition and coverage of the relevant indices. Neverthless, they indicate, in broad terms, that petrol may account for between a third and somewhat over two-fifths of total running costs. Since non-petrol costs are not always completely covered in the indices, the shares of petrol in total costs are probably overstated.

Consumer price indices do not of course include depreciation in total running costs, but when it is taken into account then of course the relative importance of petrol falls sharply. Depreciation rates are subject to variable accounting conventions and tax rules as well as the model of car and the extent to which it is used, so it is not possible to present here a detailed comparison for all the countries covered elsewhere in this note. Nevertheless, calculations for two car models in Switzerland may illustrate the point. For 15,000 kilometres travelled a year, it can be seen from table 2.10 that the relative importance of petrol is less than a third of total running costs for the small car and less than a quarter for the larger one. It is well known of course that the smaller the relative importance of a given input in total costs the less sensitive is demand for that input likely to be with respect to changes in its price. However the theory of the firm suggests that an increase in the price of one factor input will stimulate innovations which will economize in the use of that input. By analogy the private motorist might be expected to switch to cars which consume less petrol, to drive more slowly, maintain the efficiency of his car engine and so forth. But it is not clear that the theory is correct in its forecast of *where* the innovation will take place: it may be that when the price of one input increases the firm (or the motorist) will seek the easiest way to reduce *total* costs, which may imply economizing on a different input. Thus an increase in relative petrol prices may lead not to efforts to reduce petrol consumption per kilometre but, say, to reduce expenditure on upkeep and repairs.[35] Casual evidence suggests that car manufacturers may in fact have reacted in this way, at least in the five years following October 1973: although manufacturers' advertising stressed fuel economy in their new models, equal if not greater emphasis has been placed on greater reliability, reduction of regular servicing requirements, longer guarantees, etc. This argument has important implications for policy, for an increase in the real price of petrol (whether the result of OPEC policy or of tax policy in the importing country) will not necessarily lead to much progress in reaching the basic objective which is a reduction in oil imports. There is here a difference in private and social benefits: the benefits of reduced dependence on oil imports is not necessarily reflected in the price of private transport, the total cost of which the motorist wishes to minimize rather than just his petrol bill.

PUBLIC TRANSPORT

The case for subsidizing public transport has long been accepted by market economists because of the existence of scale and external economies. The possibility, suggested above, that the social benefits of reducing oil imports may not be reflected in the price of private transport is another argument in favour of such subsidies: railways and buses consume considerably less petrol per passenger per kilometre than the private motor car and so some substitution of the former for the latter would, *ceteris paribus*, lead to a reduction in petrol consumption.

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[34] The definition of these individual components varies among countries.

[35] It will be noted from table 2.9 that the costs of repairs and maintenance in fact rose faster than the price of petrol between 1972 and 1979 (between 1972 and 1978 in the United Kingdom).

TABLE 2.10

Petrol and upkeep and repairs as a percentage of total running costs, including depreciation, in Switzerland, August-September 1979

(*Percentages*)

Model	*Engine size (cm³)*		*Kilometres per year*					
			10,000	*15,000*	*20,000*	*30,000*	*40,000*	*50,000*
Citroën Visa Club	652	Petrol	25.3	29.9	33.5	38.0	39.8	41.8
		Upkeep	16.1	18.9	21.2	24.1	25.2	26.5
Volvo 265 GL	2 664	Petrol	18.6	23.2	26.5	30.8	33.2	35.3
		Upkeep	14.6	18.2	20.8	24.2	26.1	27.7

Source and note: The data above are derived from running costs for the two models given in Touring Club Suisse, *Touring*, Nos. 33 and 39, 1979. The TCS calculations assume amortization of 12 per cent a year plus 2.5 per cent depreciation per 10,000 km, and interest charges of 2.25 per cent on half the initial capital cost. Cantonal tax (for Zurich) is included, and the insurance coverage is for both models the same. Apart from re-arrangement, the only modification adopted here was to re-calculate the costs for the Citroën using the same petrol price as for the Volvo, namely 110 ct per litre of *super*.

TABLE 2.11

The price of public transport relative to the consumer price index

(*1972 = 100*)

Country	*1973*	*1974*	*1975*	*1976*	*1977*	*1978*	*1979 (I-IX)*
Austria	95.3	89.0	88.3	85.8	88.2	91.0	95.6
Belgium	99.3	92.7	88.2	89.9	92.9	97.2	..
Denmark	98.7	99.7	101.0	96.7	90.3	88.3	86.7
Finland	95.6	96.2	94.9	99.6	101.5	102.4	102.3
France..................	98.8	97.2	96.0	98.3	96.3	98.7	103.1
Germany, Fed. Rep. of ...	101.8	103.6	109.1	110.9	112.0	115.5	115.3
Italy....................	99.3	124.8	126.9	120.6	126.2	129.0	136.1
Sweden [a]	99.0	94.7	97.6	98.7	97.6	98.3	93.7
Switzerland	93.0	95.1	92.4	93.7	98.5	100.4	97.4
United Kingdom [a]	96.6	91.7	98.2	108.2	107.5	112.2	110.2 [b]

Source: As for table 2.7.

Note: Definitions are not necessarily comparable among countries. Some sources refer only to "transport provided by third parties" so that, for example, taxis and private bus companies are also included.

[a] Bus, tram and rail transport only.

[b] From retail price index, first eleven months.

TABLE 2.12

The running costs of private vehicles relative to the price of public transport

(*1972 = 100*)

Country	*1973*	*1974*	*1975*	*1976*	*1977*	*1978*	*1979 (I-IX)*
Austria..................	107.6	131.0	129.6	134.7	131.2	125.7	120.2
Belgium	104.1	116.3	124.1	122.2	115.9	110.9	..
Denmark	98.4	99.9	95.3	99.0	107.7	111.7	117.2
Finland	105.5	112.3	106.8	104.9	103.9	103.9	103.0
France	98.8	109.2	108.8	107.2	111.7	111.5	109.6
Germany, Federal Republic of	98.6	99.6	90.3	88.6	86.4	84.2	86.1
Italy	101.4	96.2	93.1	108.5	107.3	99.5	91.9
Sweden	100.5	110.6	108.3	113.5	113.3	116.2	126.1
Switzerland	107.1	109.4	107.2	105.9	98.5	95.3	101.9
United Kingdom	102.8	118.2	115.7	99.8	98.4	88.7	98.2

Source: Tables 2.8 and 2.11.

However, table 2.11 shows that the price signals to consumers have not always been set to encourage such substitution.

The price of public transport[36] relative to the total consumer price index fell in 1974 and 1975 in Austria, Belgium and France (quite sharply in Austria) but elsewhere either the real price rose or fluctuated from one year to the next. After 1975 the real price of public transport has tended to rise everywhere except in Denmark (where there has been a persistent decline since 1975). Nevertheless, in 1978 public transport was still cheaper, in real terms, than in 1972 in Austria, Belgium, France, Denmark and Sweden, and was unchanged in Switzerland; with the exception of France, the same statement appears also to be valid for 1979.

Table 2.12 compares directly the relative cost of private and public transport. Although there was a sharp increase in the relative cost of private transport in most countries in 1973-1975 it was soon followed by a fall, in several cases a substantial one. Compared with the position in 1972, private transport in 1978 and 1979 was relatively more expensive than public transport in half of the countries discussed here, but with the exception of Denmark and Sweden the tendency has been for the price competitiveness of private transport to improve. The situation in the Federal Republic of Germany, Italy, the United Kingdom and, to a lesser extent Switzerland, is striking. Relative to public transport, private motoring costs fell 16 per cent between 1972 and 1978 in the Federal Republic and 11 per cent in the United Kingdom. The fall in Italy is particularly noticeable since, as shown above, it is the only country where there has been any significant increase in the real cost of running a private motor vehicle (relative to the consumer price index). In the first three quarters of 1979 there was some (slight) check to the falling price competitiveness of public transport in the Federal Republic, Switzerland and the United Kingdom, and a further improvement in Denmark and Sweden. However in Austria, Finland, France and Italy the tendency was still in favour of private transport.[37]

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[36] The series are taken from the national consumer price indices. These sometimes refer to "transport provided by third parties" so this is not always public transport in the strict sense of being provided by a public authority. Such definitions would also include taxis, air transport, etc.

[37] On some of the policy implications of this section see below, section 4 (iv), pp. 57 *et seq*.

3. FOREIGN TRADE

Western Europe's trade and current balances deteriorated throughout 1979, largely as a consequence of rising oil and other commodity prices. In the first three quarters of the year the region's combined trade deficit amounted to $21.7 billion, compared with $4.3 billion in the same period of 1978.[38] A further marked increase in the deficit occurred in the fourth quarter. Prices of oil and other commodities continued to rise in the early part of 1980, but these price movements have become increasingly erratic and unpredictable, both in size and in their impact on trade balances.

Oil prices have now been rising for over a year, but developments in world oil markets have frequently been confused as OPEC's unified pricing system disintegrated. Spot oil prices began to strengthen towards the end of 1978, ahead of the expected increase in the OPEC price. This was raised by 5 per cent from 1 January 1979 and further moderate increases were to be made at the beginning of each quarter. But disruptions to Iranian supply, together with higher demand in the industrial countries (as a result of the exceptionally cold winter), brought about a tightening in the world oil market and a steep rise in spot prices during the first half of 1979. Producer prices began to diverge as special surcharges were imposed: at the end of June 1979, OPEC agreed to operate a two-tier price system, with prices of crude oil ranging from $18 to $23.50 a barrel. The average price of about $20.50 a barrel resulting from this agreement was some 60 per cent above the 1978 level. But spot prices remained well above the OPEC price range—in part because of the uncertainty about future supplies—and some of the producing countries diverted more of their exports to this market.

During the last quarter of 1979 certain producers raised their prices again, in some cases above the ceiling agreed by OPEC in June. On the eve of the OPEC Ministerial Meeting in December, Saudi Arabia raised its prices by $6 a barrel to $24 a barrel (backdated to 1 November), in the hope that this would be accepted within OPEC as the new "marker" price. But the meeting ended without agreement and OPEC abandoned what remained of the unified pricing system: each of the member countries was left to set its price without any reference point. By the end of 1979, prices varied from $24 a barrel for Saudi Arabian crude to about $32 a barrel for the higher quality light crudes from Algeria and Libya. The weighted average was more than double the level of a year earlier.

In an attempt to restore greater order to the pricing system by bringing its prices more in line with those of other producers, Saudi Arabia announced, at the end of January 1980, an increase in the price of its light crude from $24 to $26 a barrel, backdated to 1 January. This move, however, was immediately followed by four Gulf States raising their crude oil prices by about $2 a barrel (also backdated to 1 January), thereby restoring the differentials that Saudi Arabia had been trying to reduce. At the beginning of February, further increases were announced by Iran (by $2.50 to $31 a barrel); Venezuela ($1.42 to $28 a barrel); Nigeria ($4 to $34 a barrel); Algeria ($4.21 to $34.31 a barrel); and by Indonesia ($2 to $29.50 a barrel).

At the time of writing, there appear to be four basic tiers of prices: the benchmark price ($26 a barrel) set by Saudi Arabia; the moderate prices held by Venezuela, Kuwait and Iraq; the intermediate prices set by Indonesia, the United Arab Emirates and Qatar; and the "radical" prices imposed by Iran, Nigeria, Libya and Algeria.[39] Prices range from $26 to $37 a barrel.

The present international oil pricing system is thus somewhat chaotic and the course of future prices is unpredictable. Spot market prices, however, have come down markedly from the peak levels reached towards the end of 1979, in response to the easing of the supply-demand balance in the world oil market.[40] This has come about for a number of reasons: OPEC output has remained relatively high and production from non-OPEC countries has increased in recent months; growth of demand has been moderate, mainly as a consequence of the mild winter in the northern hemisphere; and stocks are exceptionally high.[41] Hence it is possible that prices in the near term might not rise any further and could even weaken somewhat.

But the principal determinant of the underlying price trend is likely to be the development of production in OPEC and this remains the area of greatest uncertainty. Output could be reduced by supply interruptions of a non-economic nature, or certain of the producing countries might decide to cut production to meet their perceived development requirements without regard to those of the consumers. Kuwait, one of the countries in the latter category, has already stated its intention to reduce crude oil output by a quarter from 1 April 1980. Venezuela, Indonesia, Abu Dhabi and Nigeria have also announced plans to cut production in 1980. Although an agreed OPEC reduction in output appears unlikely, a significant cutback could occur as a result of decisions by individual countries.

Over the medium term, the world demand-supply balance could remain fairly tight, with obvious implications for the price of oil. In several respects the present situation differs from that immediately after the 1973

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[38] Here and elsewhere in this section, trade balances are crude balances (imports c.i.f., exports f.o.b.).

[39] See *Petroleum Intelligence Weekly*, quoted in *The Financial Times* of 20 February 1980.

[40] In the past, the spot market played a marginal role, accounting for no more than 2-3 per cent of all transactions, but its importance increased greatly in 1979, when it is estimated that about a quarter of all OPEC supplies were channelled through it.

[41] In December 1979, stocks in the market economies were at a record level in excess of 4 billion barrels, the equivalent of about eighty days supplies.

Imports of crude petroleum: increases in dollar unit values, 1979
(Percentage change from December 1978)

Importing country	*July*	*August*	*September*	*October*	*November*	*December*
Belgium	36	48	59	67	..	..
Denmark	54	52	64	97	73	..
Finland	46	50	60	74	73	..
Germany, Federal Republic of	50	54	62	66	73	..
Ireland	27	44	43	..	..	..
Italy	36	46	54	51	59	..
Netherlands	51	57	59	70	..	
Norway	27	40	61	71	75	..
Sweden	55	57	66	59	77	..
Switzerland	51	84	76	84	83	..
United Kingdom	35	49	48	47	52	59

Source: Table 3.1 and national statistics.

price rise. In the first place, there are now no major new oilfields about to be brought into production, in contrast to the earlier period (North Sea, Alaska, Mexico). Second, estimates of Saudi Arabia's oil resources have been reduced considerably and its capacity for sustained higher production is now thought to be significantly lower than previously believed. In addition, OPEC's domestic demand for oil is expected to rise appreciably over the next few years, reducing its exportable surplus. But the greatest contrast with the situation of six years ago is the apparently reduced possibility of developing and bringing into operation alternative sources of energy on a significant scale in the near future. There is obviously great uncertainty in this field, and also as regards the effect on demand of the latest price rises, but there would appear to be quite a strong possibility that the underlying trend of the real price of oil may be upward over the next few years. This could lead to a declining trend in the terms of trade of western Europe, a situation not seen before in the post-war period.

Given the frequent changes and wide and varying disparities in oil prices in 1979, it is difficult to assess the present effect of oil prices on west European countries' total import costs. The impact may well have varied considerably as between countries, depending on differing sources of supply, product mix and reliance on the spot market. Table 3.1 shows monthly average values, in terms of US dollars, of imports of crude oil into west European countries, the figures being derived from national statistics. As would be expected, oil import costs were rising throughout the year, but with some substantial differences among countries in the rates of increase.[42]

Assuming a 10 per cent increase between November and December in unit values gives annual average (unweighted) figures for 1979 of $144 per ton for Norway, $146 per ton for Switzerland and $133 for the United Kingdom: these are equivalant to annual increases over 1978 of 40 per cent, 31 per cent and 30 per cent respectively.[43] As the product mix of fuel imports varies greatly—both as between crude and the various categories of refined oil, and between petroleum and other forms of mineral fuel [44]—there were large differences in the average rate of increase in the cost of west European countries' fuel imports in 1979. Figures in table 3.2 show the actual values of fuel imports up to the third quarter of 1979: increases over 1978 are given below. (These figures do not, of course, allow for any volume changes that may have occurred.)

Imports of mineral fuels (SITC 3)
(Percentage increase in dollar values over corresponding quarter of 1978)

	1979			
	Q1	*Q2*	*Q3*	*First three quarters*
Austria	16	42	66	42
Belgium-Luxembourg	26	39	46	37
Denmark	35	46	103	61
Finland	18	43	89	55
France	21	31	61	37
Germany, Federal Republic of	26	59	82	55
Ireland	36	36	74	49
Italy	29	29	36	31
Netherlands	31	59	90	61
Norway	16	46	97	52
Sweden	23	66	137	76
Switzerland	28	58	120	70
United Kingdom	—	46	41	27
Total western Europe	23	45	68	45

Source: Table 3.2.

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[42] The relatively large but erratic figures for Switzerland are presumably due to that country's comparatively heavy reliance on the spot market.

[43] See *Economic Bulletin for Europe*, vol. 31, No. 1, table 1.5 for the 1978 figures. Figures from the United Kingdom trade statistics for 1979 show an increase of 19 per cent over 1978 in the sterling average value of crude oil imports, equivalent to a rise in the dollar value of about 26 per cent. See *British Business*, 25 January 1980.

[44] It is believed that the adjustment of competing fuel prices to OPEC price rises generally appears to be relatively rapid and widespread in the absence of Government controls. See OECD, *Economic Outlook*, December 1979, p. 41.

TABLE 3.1

Imports of crude petroleum:[a] unit values

(*$ per ton*)

	Belgium	*Denmark*	*Finland*	*Germany Fed. Rep. of*	*Ireland*	*Italy*	*Netherlands*	*Norway*	*Sweden*	*Switzerland*	*United Kingdom*
1978											
January	103.7	101.8	100.9	106.7	107.9	101.6	102.6	108.1	104.0	114.0	105.7
February	104.0	101.4	98.1	107.0	103.9	101.0	102.4	96.0	104.6	120.2	103.6
March	102.9	100.1	97.5	107.0	102.6	98.9	103.1	103.5	101.1	111.7	100.9
April	104.1	102.0	103.7	105.9	99.4	101.0	103.1	100.4	101.0	110.1	100.8
May	103.6	100.9	99.0	103.2	100.3	98.3	103.4	97.7	100.4	106.2	99.2
June	100.6	100.4	98.9	103.7	104.5	101.0	101.1	103.6	100.4	108.4	102.9
July	102.7	102.4	100.5	104.4	106.6	99.4	102.5	101.6	105.5	111.4	103.8
August	103.3	98.3	103.4	105.4	107.6	102.0	102.7	104.5	102.3	105.5	104.8
September	103.5	100.1	102.1	104.6	107.1	99.9	102.0	106.4	101.7	105.7	103.5
October	105.0	102.7	100.9	107.1	107.7	101.1	102.7	127.1	102.6	113.7	104.5
November	102.9	102.8	97.4	105.4	101.2	97.0	101.3	94.9	..	111.3	100.3
December	101.4	102.1	99.7	107.7	106.3	100.7	101.6	103.2	..	109.0	103.3
1979											
January	105.8	105.3	104.9	111.8	104.6	101.7	105.0	111.1	106.5	112.3	103.1
February	104.7	110.6	105.8	114.2	107.0	103.8	112.7	112.1	113.4	112.9	103.9
March	111.3	109.7	107.2	119.0	110.0	110.9	115.2	119.1	117.1	123.0	111.0
April	112.0	113.5	118.6	132.4	107.3	113.1	122.2	117.5	110.9	122.8	113.3
May	119.1	137.6	125.3	136.0	130.0	117.3	127.5	132.4	148.6	150.7	120.3
June	125.4	139.6	124.3	146.3	117.9	128.5	138.3	141.0	140.5	159.2	226.6
July	138.0	157.5	145.7	162.0	135.4	137.4	153.5	131.0	158.4	164.7	139.4
August	150.4	155.7	149.4	165.9	153.4	147.2	160.0	144.4	160.0	200.3	154.3
September	161.2	167.2	159.9	174.5	152.3	154.7	162.0	166.0	169.6	191.5	153.2
October	169.0	201.5	173.3	179.0	..	152.4	173.0	176.3	161.8	200.2	151.7
November	..	176.1	172.6	186.6	..	160.6	..	181.0	180.6	199.6	157.3

Sources: Derived from data in national statistics and converted to US dollars using rates in OECD, *Statistics of Foreign Trade, Series A*, Paris.

[a] SITC 331/BTN 2709.

TABLE 3.2

Imports of mineral fuels (SITC 3) by quarters

(*$ million*)

	1978				*1979*		
	Q1	*Q2*	*Q3*	*Q4*	*Q1*	*Q2*	*Q3*
Austria	393	374	434	502	457	532	722
Belgium-Luxembourg	1 359	1 299	1 360	1 557	1 710	1 806	1 979*
Denmark	550	524	512	715	743	765	1 041
Finland	302	386	482	575	355*	553*	911*
France	4 059	3 786	3 753	4 306	4 912	4 946	6 050
Germany, Federal Republic of	4 775	4 454	4 736	5 530	6 025	7 08	8 596
Ireland	179	181	183	176	244	247	319*
Italy	2 797	3 074	3 166	4 404	3 617	3 957	4 301
Netherlands	1 963	1 928	2 039	2 408	2 573	3 075	3 874
Norway	329	328	312	388	382	478	615
Sweden	739	806	773	1 000	910	1 334	1 833
Switzerland[a]	461	456	499	503	591	721	1 097
United Kingdom	2 565	1 878	2 255	2 476	2 567	2 746	3 170
Western Europe	20 471	19 474	20 504	24 540	25 086	28 240	34 508

Source: OECD, *Statistics of Foreign Trade, Series A*, Paris, February 1980.

[a] National statistics.

Clearly, the initial impact of the 1979 oil price rises has differed as between countries very significantly. But in view of the markedly higher prices in the fourth quarter, the increase for 1979 over 1978 in terms of dollars would seem likely to be at least 60 per cent for most countries, and could be close to 100 per cent for some countries. The trade position in mineral fuels in 1978 was as follows:

Foreign trade in mineral fuel (SITC 3) in 1978

(*Million US dollars*)

	Imports	*Exports*	*Crude Balance*
Austria	1 715	191	−1 524
Belgium-Luxembourg	5 986	1 912	−4 074
Denmark	2 303	298	−2 005
Finland	1 746	223	−1 523
France	15 937	2 047	−13 890
Germany, Federal Republic of	19 567	4 559	−15 008
Ireland	718	23	−695
Italy	13 346	3 295	−10 051
Netherlands	8 355	8 100	−255
Norway	1 353	2 058	+705
Sweden	3 347	409	−2 938
Switzerland	1 924	21	−1 903
United Kingdom	9 268	4 559	−4 709
Total western Europe	85 565	27 695	−57 870

Sources: UN, *Commodity Trade Statistics, Series D*; OECD, *Statistics of Foreign Trade, Series A*, September 1979.

Allowing for the fact that the United Kingdom's import dependence on oil was reduced sharply between 1978 and 1979,[45] a 60 per cent increase in average prices in 1979 would have added some $33 billion to western Europe's total import costs, while an 80 per cent increase —which might be considered near the upper end of the range for western Europe as a whole—would have added about $44 billion. This compares with an increase of $31 billion in net fuel imports between 1973 and 1974.

Althought prices of several important *non-oil commodities* have been extremely volatile during the past year, the underlying trend of the index has been upward. This trend began in the autumn of 1978, in response to increased demand for industrial raw materials. Temporary supply constraints affecting a number of commodities kept prices rising during the early months of 1979 and, although prices tended to ease in the summer, the rising trend resumed towards the end of the year. One factor was stockbuilding in some industrial countries (see section 1 of this chapter). In addition, prices of certain agricultural commodities were affected by unfavourable supply developments in the second half of 1979. Changes in the market prices of the principal commodity groups, from the low point in mid-1978, to the end of 1979, are summarized below.

Prices of non-oil commodities, in terms of US dollars

(*Percentage changes at annual rates*)

	Second half 1978	*First half 1979*	*Second half 1979*
Food	8.3	20.8	66.6
Tropical beverages	−2.2	27.8	−1.0
Vegetable oilseeds and oils	13.4	27.2	−27.6
Agricultural raw materials	20.2	34.2	4.0
Minerals, ores and metals	25.4	34.2	16.8
Total	10.8	29.0	12.6

Source: UNCTAD, *Monthly Commodity Price Bulletin*, January 1980.

For 1979 as a whole, much the biggest increase was for food, the index rising 47 per cent in the twelve months to December, the greater part of this increase occurring in the final four months. Prices of wheat, maize and rice were all higher, but the biggest increase was for sugar, the indicator price under the International Sugar Agreement rising 87 per cent over the year and 69 per cent between August and December, reflecting an unexpected improvement in the balance between supply and demand. The US Department of Agriculture estimates that world sugar output will be 3.3 million tons lower than consumption in 1979/80, resulting in a substantial decline of world stock for the first time since 1974.[46]

However, sugar has a very big weight in the UNCTAD price index (29 per cent in food and beverages, and 52 per cent in food alone) and this almost certainly overstates the effect of food price rises on west European import costs in 1979. For instance, the United Kingdom unit value index of imports of food, beverages and tobacco (SITC 0 + 1) in December 1979 was only 4.9 per cent higher than in the fourth quarter of 1978; the average value index of the Federal Republic of Germany's imports of food and live animals was only 2.9 per cent higher in the third quarter of 1979 than in the final quarter of 1978 and France's index for products of food and agricultural industries rose by only 6.1 per cent in this period.[47]

The impact of higher prices of industrial raw materials on western Europe's import costs is likely to have been greater than that of food. The text table on the next page indicates, for selected countries, how import costs were rising in 1979.

During the first two months of 1980, certain commodity prices have displayed a volatility reminiscent of the 1973-1975 commodity price cycle. Between December 1979 and 12 February 1980, *The Economist* dollar commodity price index rose 10.6 per cent (and the sterling index by 6 per cent): the index of industrial materials increased by one-fifth and the metals index by one-quarter. But prices came down sharply during the following week, the over-all index falling 3.4 per cent and the metals index by as much as 5.5 per cent. These exceptional swings were attributable largely to a few commodities. The most spectacular increase was for sugar, the rise in the final months of 1979 accelerating in the first six weeks of 1980: by mid-February the London daily price for raw sugar was some 60 per cent above the level at the beginning of the year although it subsequently fell very sharply. The spot price of rubber in London followed much the same path, rising over 30 per cent during the first six weeks of the year and then declining in mid-February. The price of copper on the London Metal Exchange increased by one-fifth in January, taking it close to its all-time peak reached in 1974, but also then fell steeply.

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[45] The trade deficit in oil, on a balance-of-payments basis, was cut from £2,022 million to £804 million.

[46] See *IMF Survey*, 4 February 1980.

[47] To some extent, these relatively small increases may be due to the lag between changes in market prices and corresponding changes in import unit values. See article on this topic in *Economic Bulletin for Europe*, vol. 30, No. 1.

Imports of raw materials:[a] changes in average values in terms of national values

(*Percentage changes over corresponding quarter of 1978*)

	1979		
	Q1	*Q2*	*Q3*
Belgium (crude materials)	−0.9	7.3	17.6
Denmark (industrial supplies)	3.4	7.7	10.9
Finland (industrial raw materials)	7.0	9.8	18.7
Germany, Fed. Rep. of (crude materials)	1.0	7.3	10.5
Netherlands (raw materials and semi-manufactures)	1.9	8.6	15.2
Norway (raw materials)	6.2	11.1	12.3
Switzerland (raw materials and semi-manufactures)	−6.6	−12.4	7.5
United Kingdom (basic materials)	8.5	10.7	9.0
United States (crude materials)	4.2	16.7	46.2
Japan (raw materials)	2.2	27.1	52.6

Sources: OECD, *Statistics of Foreign Trade, Series A*, January 1980, and national statistics.

[a] The coverage for each country is given in the stub.

These price movements were due in only small part to factors affecting the basic position of the commodities: the supply-demand balance for sugar, as mentioned above, improved towards the end of 1979; rubber has been boosted by improved competitiveness with its oil-based synthetic competitor; and LME warehouse stocks of copper have been falling for some time. The main factor behind these recent price fluctuations has been speculation. This was most apparent in the gold, silver and platinum markets, where prices over the past few months were pushed up to remarkable levels. But in January, when gold reached a level that appeared to be unsustainable, at least in the near term, speculative interest switched to other commodities.

This upsurge in speculation in commodity markets reflected a number of developments: continuing uncertainty over oil supplies and prices; increased international tension; rising inflationary expectations; and the prospect of an enormous and potentially destabilizing OPEC current account surplus. Some part of the latter may already be finding its way into purchases of non-oil commodities in the absence of attractive financial assets in which to invest surplus funds. Whether such purchases are termed investment or speculation would seem to depend on the length of time they are intended to be held. But as such commodities do not yield any interest, they are only purchased in the expectation of capital appreciation; such appreciation can be brought about, at least in the short to medium term, by such purchases, so there is now a prospect that the trend for prices of certain raw materials—basically industrial raw materials which can be stored for lengthy periods—may be upward over the next few years.[48] This is much less likely to apply to the main foodstuffs and beverages: for these commodities, for most of which present supplies are sufficient, prices seem unlikely to rise much in the near term (medium-term price developments, of course, are determined mainly by fluctuations in supply, which by their nature are unpredictable).

As a consequence of higher commodity, and especially oil, prices, western Europe's terms of trade worsened considerably in 1979: by the third quarter they were some 4 per cent lower than a year before and a further decline took place in the fourth quarter.[49] Particularly big deteriorations were experienced by Denmark, the Federal Republic of Germany and Switzerland (the terms of trade having been highly favourable in 1978). But all other countries recorded some decline in this period except for Norway and the United Kingdom, which benefited from rising North Sea oil production and, in the case of the United Kingdom, from an appreciating exchange rate.

FOREIGN TRADE BALANCES [50]

The growth of western Europe's import volume accelerated sharply in 1979, reflecting in part the increase in stockbuilding. In the first three quarters of 1979, import volume increased by around 10 per cent over the same period of 1978. Particularly fast growth was recorded by Finland (some 18 per cent in this period, but still below the 1975 level), Ireland, Italy and Sweden.

By contrast, export volume was only slightly above the 1978 rate of growth and appreciably below that for imports. An important factor in this relatively slow export growth was the fall in exports to the oil exporting countries, the value of western Europe's combined exports to this group of countries falling by 3 per cent.[51] The effect of the contraction of import demand in this market—which was concentrated mainly on Iran to which exports fell by $4 billion [52]—varied among west European countries, depending in large part on the relative importance of this market.

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[48] The downturn in economic activity in the developed market economies in 1980 might have been expected to result in a significant weakening of prices of industrial raw materials. But it is thought that primary commodity prices are now less responsive to weak demand conditions because of the effects of energy prices on cost structures, the slow expansion of capacity over the past five years, and the low level of producers' stocks: see OECD, *Economic Outlook*, December 1979, p. 38.

[49] The terms of trade losses in this period were even greater for the United States (—6 per cent) and, especially, for Japan (—22 per cent), the latter being highly dependent on imported fuel and raw materials as well as suffering from a very marked currency depreciation.

[50] For a detailed description of developments in the first half of 1979, see the *Economic Bulletin for Europe*, vol. 31, No. 1, chapter 1.

[51] The GATT Secretariat estimate that the dollar value of OPEC's total imports in 1979 fell by 4 per cent. See GATT press release of 15 February 1980. It has also been estimated that the volume of OECD's exports to OPEC fell by 11 per cent in 1979. See OECD, *Economic Outlook*, December 1979, table 25.

[52] Exports to Nigeria also fell in this period (by about 30 per cent).

West European countries' exports, in terms of dollars

Exporting country	*To oil exporting countries*[a] *January-September 1978*[b]	*January-September 1979*	*Percentage change*	*To Iran* *January-September 1978*	*January-September 1979*	*Percentage change*
Austria	439 (5.1)	445	1	89	43	−52
Belgium-Luxembourg	1 533 (4.9)	1 638	7	255	85	−67
Denmark	433 (5.1)	387	−11	68	62	−9
Finland	251 (4.2)	284	13	71	24	−66
France	4 590 (8.0)	4 914	7	702	271	−61
Germany, Fed. Rep. of	8 729 (8.6)	7 501	−14	2 478	935	−62
Ireland	156 (3.8)	193	24	24	15	−38
Italy	4 719 (12.7)	5 249	11	791	253	−68
Netherlands	1 813 (5.0)	2 117	17	235	157	−33
Norway	138 (1.9)	176	28	21	12	−43
Sweden	746 (4.9)	941	26	159	39	−75
Switzerland	1 406 (8.4)	1 188	−16	302	137	−55
United Kingdom	6 453 (12.4)	5 411	−16	1 078	336	−69
Western Europe	31 406 (8.2)	30 444	−3	6 273	2 369	−62

[a] For coverage see table 3.3.

[b] Percentage of indicated country's total exports in brackets.

TABLE 3.3

Exports to oil-exporting countries[a]

Reporting country	*Value in million US dollars* 1978 *Q1*	*Q2*	*Q3*	*Q4*	1979 *Q1*	*Q2*	*Q3*	*Percentage change over corresponding period of 1978* 1979 *Q1*	*Q2*	*Q3*
Austria	153	150	136	150	131	141	173	−14	−6	27
Belgium-Luxembourg	530	515	488	644	511	566	561	−4	10	15
Denmark	119	134	180	147	124	128	135	4	−4	−25
Finland	106	70	75	83	73	114	97	−31	63	29
France	1 522	1 631	1 437	1 641	1 520	1 753	1 641	0	7	14
Germany, Federal Republic of	2 732	2 926	3 071	3 348	2 525	2 306	2 670	−8	−21	−13
Ireland	49	47	60	53	56	66	71	14	40	18
Italy	1 353	1 790	1 576	2 225	1 506	1 937	1 806	11	8	15
Netherlands	556	593	664	654	590	667	860	6	12	30
Norway	43	45	50	54	57	60	59	33	33	18
Sweden	218	261	267	385	291	339	311	33	30	16
Switzerland	441	496	469	491	342	432	414	−22	−13	−12
United Kingdom	2 076	2 245	2 132	2 150	1 502	1 847	2 062	−28	−18	−3
Total western Europe	9 898	10 903	10 605	12 025	9 228	10 356	10 860	−7	−5	2
United States	3 608	4 293	3 997	4 115	3 390	3 565	3 636	−6	−17	−9
Japan	3 313	3 529	3 829	3 507	2 532	3 042	3 539	−24	−14	−8
Total above	16 819	18 725	18 431	19 647	15 150	16 963	18 035	−10	−9	−2

Source: IMF, *Direction of Trade*, Washington, August 1978, November 1978, February 1979, June 1979, August 1979, November 1979, January 1980.

[a] Algeria, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Oman, Qatar, Saud Arabia, United Arab Emirates, Venezuela.

The faster growth of the volume of western Europe's imports than of its exports in the first three quarters of 1979 resulted in a deterioration in the region's real foreign trade balance. This applied to most countries in the region, with especially big declines for Finland, Ireland and Sweden—following their large import increases—and for Switzerland and the United Kingdom, both of which experienced low export growth. The only countries where the real trade balance had a positive influence on output growth in this period were Austria, Belgium, the Netherlands and Norway.

The combined effect of a significant weakening in the real trade balance and a sharp deterioration in the terms of trade was a massive increase in western Europe's crude trade deficit, from $4.3 billion in the first nine months of 1978 to $21.7 billion in the corresponding period of 1979. The final three months of the year will have seen a further marked growth in this deficit. Of the $17.4 billion increase in the first three quarters, $12.2 billion was attributable to the oil exporting countries, exports to these countries (as shown above) falling 3 per cent and imports rising 31 per cent (only marginally above the rate for western Europe's total imports: see table 3.4).

The other major change was in trade with North America, the deficit doubling to over $10 billion. Given the continuing high level of economic activity and relatively high rates of capacity utilization in the United States, this very large swing in favour of North America was surprising.[53] The dollar value of western Europe's exports to North America increased by only 17 per cent, implying very little growth in volume. The same applied to exports to eastern Europe and to Australia, New Zealand and South Africa, import demand being depressed in both groups of countries in 1979. A 40 per cent increase in the dollar value of imports from the Soviet Union, explained in part by the oil price rise, resulted in a big increase in western Europe's aggregate trade deficit with that country. China again provided the fastest growing export market, with a two-thirds increase to $2½ billion in the first three quarters of 1979.

The deterioration in western Europe's trade balance was spread among all the countries of the region with the single exception of Norway. The latter country benefited both from improved terms of trade and a strengthened real trade balance, imports actually falling in the first half of 1979: the crude trade balance with the rest of western Europe swung from a deficit of $306 million in the first nine months of 1978 to a surplus of $423 million in the corresponding period of 1979, imports rising 17 per cent and exports 31 per cent.

All the other twelve countries recorded worsening of their external trade positions in the first nine months of 1979 (see table 3.5). In fact, every country recorded crude trade deficits in this period except for Finland (a very small surplus) and the Federal Republic of Germany (still in very large surplus even though imports rose by $4 billion more than exports). Furthermore, the external positions of most countries worsened significantly in the fourth quarter as the impact of rising oil prices fed through into import costs. For 1979 as a whole, the Federal Republic of Germany's trade surplus was DM 22.5 billion (compared with DM 41.2 billion in 1978), France had a deficit of FF 10.1 billion (FF 2.5 billion in 1978), Ireland's deficit was £1,336 million (£730 million in 1978), Italy recorded a deficit of $2.5 billion (over twice as large as in 1978), Sweden moved into deficit, of S.Kr. 3.6 billion, from a surplus of S.Kr. 5.5 billion in 1978, Switzerland's deficit was S.Fr. 4.7 billion (S.Fr. 0.5 billion in 1978) and the United Kingdom had a deficit of £3.2 billion (£1.5 billion in 1978). For the Netherlands, by contrast, the deficit increased only slightly, from 6.2 billion guilders in 1978 to 6.7 billion guilders in 1979.[54] Recorded changes in current account balances tended to reflect changes in trade balances.[55]

TABLE 3.4

Western Europe's trade by area of origin and destination, January-September 1979

Country or area of origin for imports and destination for exports	*Imports c.i.f. ($ billion)*	*Exports f.o.b. ($ billion)*	*Percentage change in dollar value from January-September 1978*		*Trade balance ($ billion)*	*Change in trade balance from January-September 1978 ($ billion)*
			Imports	*Exports*		
Western Europe	307.7	306.8	30	30	−1.0	0.5
Southern Europe	14.6	21.7	34	36	7.1	2.0
Rest of the world						
North America	42.6	32.2	29	17	−10.4	−5.1
Soviet Union	11.1	8.1	40	21	−2.9	−1.7
Eastern Europe [a]	9.3	10.7	26	15	1.4	−0.5
Japan	11.6	5.9	20	39	−5.7	−0.3
Australia, New Zealand and South Africa	8.2	7.9	20	16	−0.4	−0.3
China	1.4	2.5	41	65	1.1	0.6
Non-oil developing countries	42.1	44.0	27	25	1.9	−0.2
Oil-exporting countries [b]	47.7	30.4	31	−3	−17.3	−12.2
World (including unspecified)	499.8	478.2	29	25	−21.7	−17.4

Sources: IMF, *Direction of Trade*, Washington, August 1979, November 1979, January 1980.

[a] Excluding trade between the Federal Republic of Germany and the German Democratic Republic.

[b] Algeria, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Oman, Qatar, Saudi Arabia, United Arab Emirates, Venezuela.

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[53] Only a fairly small part of the improvement in North America's trade balance with western Europe would seem to be due to the effective subsidy to US exports of certain chemicals provided by the artificially low prices of oil feedstock.

[54] Some of these figures are on a balance-of-payments basis and are therefore not directly comparable with those in table 3.5.

[55] The margins of error for invisibles, however, have tended to become extremely large in recent years.

TABLE 3.5

Total trade of west European countries, January-September 1979

Country	*Imports c.i.f.* (*$ billion*)	*Exports f.o.b.* (*$ billion*)	*Percentage change in dollar value from January-September 1978*		*Trade balance* (*$ billion*)	*Change in trade balance from January-September 1978* (*$ billion*)
			Imports	*Exports*		
Austria	14 292	10 949	25	26	−3 343	−569
Belgium-Luxembourg	42 765	40 073	28	28	−2 692	−649
Denmark	13 180	10 262	25	21	−2 918	−839
Finland	7 807	7 833	40	32	26	−340
France	76 064	71 827	29	26	−4 237	−2 506
Germany, Federal Republic of[a]	113 804	123 676	31	22	9 872	−4 093
Ireland	7 271	5 086	40	25	−2 185	−1 057
Italy	51 924	50 053	39	35	−1 871	−1 557
Netherlands	49 085	45 857	26	26	−3 228	−647
Norway	9 698	9 399	16	27	−299	633
Sweden	19 535	19 093	38	26	−442	−1 409
Switzerland	20 953	18 996	22	13	−1 957	−1 543
United Kingdom	73 438	65 057	28	25	−8 381	−2 775
Total western Europe	499 816	478 161	29	25	−21 655	−17 351

Sources: IMF, *Direction of Trade*, Washington, August 1978, November 1978, January 1980.

[a] Excluding trade with German Democratic Republic.

In view of the higher oil prices, the external position of most west European countries will be worse in 1980 than in 1979. The only really buoyant markets are likely to be the oil exporting countries, quite probably South Africa (following the gold price rise) and possibly China once again. Although import demand in the oil exporting countries is almost bound to expand considerably in 1980—in marked contrast to the actual decline in 1979—the extent of this increase is highly uncertain: it is not likely, however, to be on the same scale as in the mid-1970s, in the immediate aftermath of the 1973 oil price rise. The benefits from higher exports to this market will again probably accrue disproportionately to the larger west European economies and Switzerland (plus the United States and, in particular, following the substantial increase in its price competitiveness over the past year, to Japan).

Unless import demand in some of the larger industrial economies is unexpectedly high, therefore, the smaller west European economies' scope for improving their trade balances through increased exports seems likely to be severely limited in 1980.[56] Some of these smaller economies are already facing difficult external positions, in particular Ireland and Denmark (though this country has had a persistent deficit for many years, which has little to do with the higher oil price). Ireland is especially vulnerable because of its heavy export dependence on the United Kingdom market, where demand will be depressed over the coming year. Austria and Belgium have also experienced some worsening of their external accounts in recent years. But if the real price of oil continues to rise and the terms of trade of the developed market economies to deteriorate, some basic shifts in the pattern of international trade and payments will take place.

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[56] Some indication of the importance of these markets for the smaller economies is shown by the fact that in the first nine months of 1979, the Federal Republic accounted for 42 per cent of the total increase in Norway's exports with corresponding figures of 38 per cent for Austria, 33 per cent for Switzerland, 29 per cent for the Netherlands and 22 per cent for Belgium.

4. PROSPECTS AND POLICIES

In the following section (i) there is an analysis of some of the characteristics of the economic developments that followed the large increase in the real price of oil in 1973. There is also a discussion of the policies pursued and the lessons that might be drawn for judging the present situation.

In section (ii) a set of short-term indicators is used to illustrate the evolution of "demand pressure" in some west European countries. Indicators of price expectations are also examined. The purpose is to put into relief the present situation with regard to cyclical phasing and to examine the volatility of inflationary expectations. These factors are important for the formation of present policies.

In section (iii) present policies are discussed against the background of the developments in the 1970s as described in the two previous sections. It is argued that there is some risk, on the one hand, that some earlier mistakes may be repeated and on the other hand that policy-makers in some respects might over-react with regard to past experience. One particular risk is that, whilst after 1973 short-term problems were very much in focus whilst structural problems of adjustment were neglected, the opposite might occur in the present situation.

Past experiences have an important bearing on present policies to adjust consumption and production patterns to the new oil price development. In particular there seems to be a need for better co-ordination both within and between sectors. In section (iv) this is illustrated by a discussion of petrol pricing in the context of private motoring and public transport.

(i) The lean years

1973 will be remembered as the year of the dramatic increase in the price of oil. The real oil price—in terms of manufacturing prices—thereafter dropped gradually but was abruptly raised again in 1979. This "oil price" cycle lasted about as long as a traditional business cycle but was distinguished by a dismal performance in terms of foregone growth. This is illustrated by the following table for the 13 industrialized west European countries where average annual percentage rates of change of some key indicators are compared for the periods 1960-1973 and 1973-1979:

	1960-1973	*1973-1979*
Gross national product	4.5	2.2
Employment	0.4	—
Productivity	4.1	2.2
Gross fixed investment	5.2	0.8
GNP deflator	5.0	10.0

The growth rate of GNP was halved as between the "oil price" cycle and the two preceding "normal" cycles. The sharp deceleration in output after 1973 was mainly reflected in a very low increase in labour productivity. In a number of countries the deceleration in labour productivity appears to have been larger than could be expected from past relations between productivity and output expansion. Part of the explanation, in addition to employment supporting measures, can be found in the decline or stagnation of gross fixed investment, which also indicates foregone potential production. The average rate of inflation virtually doubled between the two periods. The table thus demonstrates the elements of a vicious circle that seems to have prevailed during the 1973-1979 period. Inflation has curtailed demand, particularly investment demand. Low output growth together with a slow expansion and an aging of the stock of real capital have had an adverse effect on productivity which, in turn, has made it difficult to break inflation. There was also, after 1973, a large deterioration of the current balance of the industrialized countries which, furthermore, was very unevenly distributed among them. The adjustment of these imbalances brought about additional inflationary pressures and production losses. It might be said that the narrow path to balanced growth was never found.

In the last two years of the past decade there were some signs that this vicious circle might be broken. Capacity utilization rates in manufacturing increased and investment incentives were thus strengthened, whilst inflation rates came down significantly. But, as in 1973, there were in 1979, already before the oil price rise, signs of increasing imbalances in the form of sectoral supply restrictions and higher inflation rates. The latest increase in the real oil price is in various respects quantitatively less severe than it was in 1973. But a number of countries may be in a worse condition than in 1973 to absorb such a shock. There have been no notable improvements in the energy supplies. Inflation is considered to be more dangerous and more ingrained now than in 1973 and this lays a severe constraint on economic policies. There is always a risk that the awareness of past mistakes leads economic policy to over-react in a following, apparently similar, situation. Under such circumstances it is of some interest to review the main features of and draw some lessons from the years 1973-1979.

Certainly the inflation problem was already well to the forefront of economic preoccupations in the early 1970s.[57] A sudden and widespread acceleration in price increases had taken place in 1970 when the GDP deflator for the 13 industrialized west European countries combined was nearly 6.5 per cent (unweighted average). Inflation proved to be more stubborn than generally forecast and the rate of increase in western Europe remained above 7 per cent, both in 1971 and 1972. A further acceleration took place in 1973, before the outbreak of the Middle East War in October. This is not the place to elaborate on the underlying factors. It might be worth remembering, however, that the 1969/70 boom in the manufacturing industry had been at the centre of the inflationary process. Domestic wage-price mechanisms had become geared to expectations of uninterrupted increases in real incomes and concomitant claims for nominal wages. Furthermore, the west European economy had had to absorb a series of exceptional shocks. World liquidity had been increased by the United States trade deficit. The floating of exchange rates had given economic policy-makers enlarged scope for active demand policy in easing, if not removing, the constraint of external balance. On the commodity markets, agricultural prices soared in 1972 owing to a decline in world agricultural production. In 1973, the industrialized market economy countries moved almost simultaneously towards a business cycle peak and the fear of commodity shortages provoked a price rise which had been unprecedented since the Korean war. The large oil price increases of end-1973 were thus imposed on strong and persistent inflationary forces.

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[57] See ECE, *The Economic Survey of Europe in 1970*, part II, United Nations, New York, 1971; and OECD, *Inflation: the present problem*, Paris, December 1970.

It is difficult to ascertain the relative strength of the above-mentioned inflationary forces, of the role of new and old factors, or of domestic and international factors. It is notable, however, that the pattern of international inflation represents something new in the post-war period, namely widely and persistently diverging national rates of inflation. The ensuing exchange rate adjustments are seen as an important link in this inflationary process. Much of present economic policy efforts therefore consist of bringing about a convergence of national inflation rates.

Between 1972 and 1973 there was not much spread between the price developments in most countries. There were, however, in spite of an alleged cyclical synchronization, significant differences in the intensity of the boom which, under the new conditions, might well have prepared the ground for the differences in the following acceleration of inflation. Thus in 1973, both Italy and, particularly, the United Kingdom registered increases in GDP which were well above trend, whilst the deviation in the Federal Republic of Germany was rather small. In 1974 inflation accelerated in Italy and the United Kingdom, consumer prices increasing by 21 and 17 per cent respectively, while in the Federal Republic there was a slight deceleration, from 7.5 per cent in 1973 to about 7 per cent in 1974. (This pattern is borne out also by the short-term indicators discussed in the following section.) One additional factor in this development might have been the differences in inflationary impact caused by the increased cost of fuel imports. In terms of GNP this effect is estimated at 3.3 per cent for the United Kingdom, 4.1 per cent for Italy but only 1.7 per cent for the Federal Republic of Germany.

Monetary policies generally became more restrictive during the first years after the oil price increase in 1973. The rates of increase of nominal money supply in the OECD area as a whole declined from the beginning of 1973 to mid-1975. The change in the real money supply was negative in 1974 and the first half of 1975.[58] There were differences, however, with regard to the degree of accommodation of inflation as measured by real rates of interest. In the United Kingdom the real (long-term) rate of interest remained slightly negative from 1973 onwards; in Italy it gradually fell to about –10 per cent at the beginning of 1974 and thereafter rose only slowly. In the Federal Republic of Germany the real (long-term) rate of interest was all the time positive and in 1973 and 1974 gradually increased to about 5 per cent.

The United Kingdom and Italy on the one hand and the Federal Republic of Germany on the other, have here been taken as examples of the emerging differences between high and low inflation countries respectively that would later emerge as weak and hard currency countries. Most countries can be classified as belonging to one or the other group and the pattern stayed relatively unchanged in the following years.[59] Differences in the initial rates of acceleration of inflation created mechanisms of expectations and exchange rates changes which proved to be very robust. This robustness became clear in 1975 when national economic policies tended to converge but the international inflation pattern persisted.

From mid-1974 most west European countries entered a severe recessionary phase reflecting weakening of all private expenditure components, but particularly stockbuilding and fixed investment. Fiscal policy responded gradually, to begin with mainly by (reverse) fiscal drag and later, in 1975, also by enlarged public expenditure. General Government deficits reached very large proportions of GDP in 1975 compared to previous years.

Real gross household income has continued to increase in most countries in spite of the stagnation or fall in national products. Real wages during the first two years after the oil crisis everywhere moved significantly ahead of productivity (the latter being adjusted for changes in income terms of trade).[60] The deterioration of the terms of trade was most severe for Italy and the United Kingdom amounting to about 3.5 per cent of GNP. This development pointed at an early stage to the need for adjustment through higher productivity growth and the moderation of real wage increases. The gap between these two variables (in favour of the latter) became a major component of the inflation mechanism. It implied a shrinking share of the enterprise sector in total factor income which had adverse effects on investment and, thereby, on productivity.

The first years after the oil price increase in 1973 were also characterized by changes in the propensity to save of households. Savings ratios increased generally both in 1974 and 1975, a rise which has been explained by the desire to restore the real value of monetary wealth eroded by inflation. This relationship, between inflation and savings rates, seems to be of a non-linear nature in the sense that the response of the latter becomes relatively stronger the higher is the former. The expansionary effects of fiscal policies on private consumption thus leaked into an abnormal increase of household savings of about the same magnitude. The direct and indirect expansionary effects emanating from the public sector were, during the first two years of the "oil" cycle, offset to such an extent that the modest increase in GNP of western Europe in 1974 was more than lost in 1975.

Private fixed investment, particularly in manufacturing, declined dramatically. Such a decline can to a large extent be explained by increasing rates of unused plant capacity. The expected surge in investments in energy production and conservation did not, on the other hand, materialize in a significant way. Inflation was a negative influence on investment decisions because of the associated uncertainties about future prices, such uncertainties increasing with variations in the inflation rate. The higher the inflation rate the higher tends to be its variation and the greater therefore the adverse effect on investment.

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[58] OECD, *Economic Outlook*, December 1979, p. 33.

[59] Cf. the section on prices in previous issues of this *Survey*.

[60] OECD, *Economic Outlook*, July 1977; pp. 61-64.

Between mid-1975 and mid-1976 there was a marked acceleration of the GNP growth rate, which was largely due to a sharp positive swing of the inventory cycle. This development was thus bound to lose its impetus. Both fiscal and monetary policies, however, were becoming progressively more restrictive. The savings ratios of households generally fell but this positive effect on private consumption was more or less offset by the effects of higher net taxes on real disposable income. Private fixed investment, including residential construction, remained very sluggish. The sharp fall in GNP growth rates in the major west European countries as well as in the United States between the first and second half of 1976 was an unfavourable setting for the exchange rate adjustments that had become necessary because of the dispersion of national inflation rates and the deterioration of current accounts in the preceding years.

In the course of 1976 the Italian lira effectively depreciated by about 25 per cent, the pound sterling by about 20 per cent and the French franc by about 10 per cent. The consequent improvements in competitive position were costly in that the depreciations generated further inflationary pressures that eventually wiped out the initial advantage. Price impulses were rapidly transmitted from import and export prices into a wage-price spiral. Thus in 1977 consumer prices increased by 16-17 per cent in the United Kingdom and Italy but only by 4 per cent in the Federal Republic of Germany. Part of the explanation of the virulence of inflation in the high-inflation countries would be the legacy of ingrained inflation expectations. Another factor may be differences in the way current and expected inflation rates condition the behaviour of labour market agents. Part of the explanation would also have to be attributed to economic policy. One lesson to be drawn from the experience of depreciations during the "oil" cycle is that they should be made as part of an extensive and comprehensive policy package. Thus Sweden's depreciation in 1977 might be quoted as fairly successful: it was supported by restrictive policies, modest wage responses and a favourable business cycle phasing.

Exchange rate changes have tended to have a depressive net effect on total international demand, which can be seen as adverse in the context of general stagnation. When a depreciation is undertaken, restrictive measures are (or should be) part of the economic policy package. Expansionary policy however, does not come as naturally to the country that appreciates, particularly if the appreciation is not deliberate. Since most exchange rate changes have been deliberate depreciations, the over-all depressive effects have tended to prevail.

The depressive demand effects of exchange rate changes tend to be enhanced by the reactions of the private sector. In a depreciating country, uncertainty about future price developments weaken investment incentives whilst enterprises might view any increases in profits as only temporary. Private consumption is adversely affected by losses in real household income and possibly also by increasing saving ratios as prospective inflation moves upward into the "critical" range. Restrictive policies might therefore prove to be excessive if these factors are not taken into consideration. In the appreciating country, on the other hand, the potentially favourable effects of the appreciation on inflation may not be recognized at all, or at least, only with a long delay. The current inflation rate may anyway be relatively low so that the range within which changes are likely to take place will not either materially raise the evaluation of financial wealth held by households (and thus not lower the saving ratio) or diminish the influence of uncertainty on business investment. Finally, there is also an asymmetric effect in the way consequent price changes follow changes in the exchange rate. The inflationary effects on domestic prices are felt rapidly and in full, whereas the restraining impact of a currency appreciation tends to be slight and rarely brings about an absolute fall in prices.

In spite of their costs in terms of price and demand effects the exchange rate changes did, however, have beneficial effects on balance-of-payments adjustment. This can be seen in the reversal of the surpluses of the Federal Republic of Germany and Japan into deficit: from this point of view appreciations can be said to have become a substitute for differential demand management. As external imbalances were gradually removed and the inflationary impetus caused by depreciations tended to peter out, it became possible for most countries to embark on a more expansionary path. The expansion in 1979 had actually entered a stage of fairly well-balanced "demand pressure" in western Europe, but there were signs of rising inflationary expectations (see the following section). The United States on the other hand had entered a fully-fledged boom. At mid-1979 the outlook for western Europe was for a marginal slowing down in the growth rate and less than a percentage point's increase in inflation. However, the oil price increases in 1979 changed this prospect. The present outlook is for significantly slower growth in 1980 than in 1979 with no great likelihood of an improvement during the present year. The over-all inflation rate might be about 10 per cent compared with about 8 per cent in 1979. The deficit on current balance of the OECD countries in 1979 was about twice as high as expected or about $30 billion compared to a surplus of $9 billion in 1978. The deficit in 1980 may amount to some $50 billion.

The impact of the oil price increases of 1979 can be measured in different ways and thus the comparison with the corresponding increase in 1973-1974 can also be made in different ways. One important measure, however, is the total value of the expected OPEC surplus which not only denotes the "oil burden" to be shared among other countries' external balances but also indicates the depressive effect on the non-OPEC world. Deflated by the United Nations' world index of unit values of manufactures, the OPEC surplus in 1979 is estimated to have more than quadrupled as compared with 1978 but was still about a third less than in 1974.[61]

For western Europe the impact measured in terms of the increased cost of fuel imports appears to have been considerably smaller in 1979 than 1974. There will, however, probably be additional adverse effects in 1980. A given "oil price" shock is likely to have a relatively larger impact than in 1973 on the present fragile confidence of the public and economic policy-makers. The oil price increase was a major factor in bringing the upswing to a halt.

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[61] NIESR, *National Institute Economic Review*, London, November 1979, p. 21.

Further large increases in the real price of oil beyond the level reached at the end of 1979 would have progressively adverse effects on countries which are already in imbalanced positions with regard to growth and inflation. The sensitive price-wage-price spirals will tend to be reinforced by the losses in real income caused by the deterioration of terms of trade. The real income loss will also have depressive effects in the oil-importing countries, a loss on which is superimposed a multiplier effect. The depressive effect can only to a limited extent be expected to be offset by increased purchases by the oil-exporting countries. The feed-back effects from higher oil revenues were large during the "oil" cycle as witnessed by the gradual decline of the OPEC surplus: in 1978 it was back (in nominal value) to the 1973 level. But a second massive increase in OPEC revenues can hardly be rapidly spent as the absorptive capacity of most OPEC-countries has now become much smaller.

The latest increases in oil prices may have disruptive effects on the international monetary system. There is now a large and increasing overhang of OPEC financial claims on other countries, presumably mainly in liquid form. An indication of the order of magnitude of that overhang is the cumulated OPEC surplus on current account which for the years 1974-1980 is estimated at about $300 billion, to which should be added accrued rates of return of various kinds. It will become increasingly more difficult to place increases in this overhang profitably, that is, in such a way that the alternative of keeping the oil in the ground is not more profitable. It is true that "recycling" has functioned rather well since 1973. But private financial circuits are becoming progressively fragile and might not be able to handle a new wave of petro-dollars. There is no established machinery for official intermediation, which anyway, has certain drawbacks. This is a problem area where international co-ordination seems to be urgently needed.

In 1979 there appeared international differences in cyclical phasing—particularly with the United States leading the slowdown—which would presumably have eased the sharpness of the (mild) recession that was expected before the second oil price shock. As will be discussed in the next section, there seems to have been converging movements of "demand pressure" in the main west European countries towards a fairly balanced level from which a downturn now is likely to occur. The expected slowdown in the United States, on the other hand, has been delayed. Restrictive policies and the uncertainty about future oil prices are presently common to most countries. The future development is therefore likely to be fairly synchronized. There are, however, differences between countries with regard to the extent of their increased oil bill, the degree of restrictiveness of economic policy, and the way the economies respond to these two factors. Countries which have managed to maintain a relatively low rate of inflation will resist renewed inflationary impulses because that is the strategy they have pursued in the first place. Because of their favourable initial position they also have the best chances of succeeding in their aims. Other countries start from a worse position with regard to current and expected inflation and therefore are also more restricted with regard to the policy scope for checking a price-wage-price spiral. The emergence of hard and soft currency countries during the "oil" cycle was partly caused by diverging policy targets and misconceptions about the use of policy instruments. These factors might now have been removed. But the legacy of inflation in various countries will be hard to shed in a world exposed to successive inflationary impulses. The world economy has become progressively more integrated, but international economic co-operation has not kept step with this development. This means that the existence of "vicious" as well as "virtuous" circles are progressively more difficult to break.

(ii) Patterns of demand pressure and price expectations

In view of the importance attached by policy makers to the state of price expectations and business cycle phasing an attempt is made in this section to trace these developments over the past decade. In particular a comparison will be made between the present situation and that which characterized the initial phase of the "oil price" cycle. Comparisons will also be made in these respects between some west European countries for which comparable information is available. This information is obtained from surveys of the intentions of consumers and enterprises. The business surveys are particularly useful for pin-pointing the current business cycle phase in various countries and also as indicators of economic developments in the near future. A strong argument in favour of using these variables is that they provide assessments of the activities of clearly identified actors. From this point of view they have a consistency and comparability that is lacking in other information systems. Such information has been used extensively in recent issues of this *Survey*. In particular a synthetic variable indicating changes in "demand pressure" in manufacturing industry has been used. This indicator is derived from the views of the entrepreneurs with regard to levels of inventories of finished products and order stocks. The "demand pressure" is positive when a weighed majority of entrepreneurs view order stocks as unusually large and inventories as abnormally low. "Demand pressure" is viewed as increasing if these tendencies are strengthening and vice versa if they are weakening. The "demand pressure" is negative if order stocks are viewed as unusually small and inventories as abnormally high. The order stock series can be viewed as a demand indicator and the inventory series as a supply indicator. The variables usually move in opposite directions and thus reinforce each other in the computation of the "demand pressure". When they are conflicting the relative sizes of the two series will determine the sign of the "demand pressure".[62]

The indicator of "demand pressure" permits a judgement on the present cyclical phasing of various countries and on tendencies in the immediate future. It will be discussed together with survey results showing the prevalence of inflationary expectations. This variable is also highly relevant as a basis of information for economic policy-making as the "fight against inflation" is essentially

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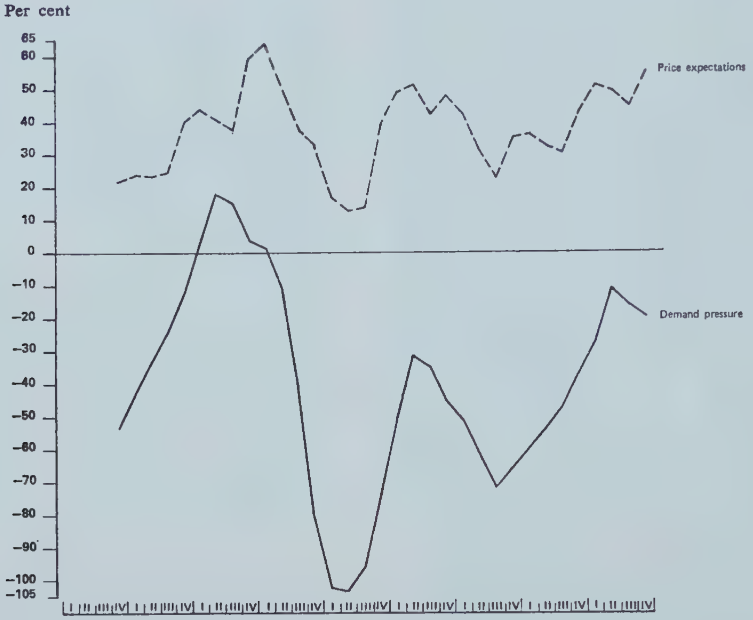
[62] See *Economic Survey of Europe in 1978*, part I, pp. 37-39, for a more detailed description. The basic information has been obtained from: Commission of the European Communities, *European Economy*, Supplement—Series B, "Economic prospects —business survey results".

CHART 4.1

Price expectations and demand pressure

(Quarterly averages of monthly data for total manufacturing industry: EEC)



Source: EEC, *Results of the Business Survey carried out among managements in the community* (various issues).

directed towards inflationary expectations. If these are receding there might be larger scope for increasing an insufficient "demand pressure" to a more balanced level. It can be shown that there is an apparent coincidence particularly with regard to the turning points between the two variables. The two variables will be used here not only to describe the present situation but also to compare it with the initial phase of the previous "oil price" cycle. The discussion in the preceding section of this chapter can thus to some extent be substantiated with regard to the relative development of various countries and the similarities and differences between them at different points in the cycle.

Chart 4.1 shows the "demand pressure" and inflationary expectations in the European Economic Community as a whole.[63] In the first quarter of 1973 the curve for "demand pressure" surpassed the zero line and thus entered the "excess demand" zone. This situation lasted for about five quarters. In the second quarter of 1974 the curve was back on the negative side. It will be shown later that the peaking of the curve is about the same for most countries (cf. chart 4.2, to be discussed later) but that they differ considerably with regard to the duration and the intensity of the period of "excess demand".

The prevalence of inflationary expectations increased almost continuously reaching a peak in the first quarters of 1974.[64] There was thus a three-quarter lag between the peaks of "demand pressure" and of inflationary expectations. The peaking of the expectations curve is also well synchronized as between the various countries (chart 4.4).

During the first four quarters of "negative demand pressure"—second quarter 1974 to second quarter 1975—there is a very steep decline. The bottom of the curve coincides with the bottom of the expectations curve. Also the succeeding peaks and bottoms coincide, i.e., in the second quarter of 1976 and the third quarter of 1977 respectively. The lag between "demand pressure" and expectations at the beginning of the "oil" cycle thus appears to have been compressed at a later stage in the cycle.

From the bottom in 1977 the "demand pressure" curve was rising continuously. It is of some interest to compare this upswing with that of 1971-1973 (the latter starting from a bottom in the fourth quarter of 1971). The vertical rise of the curves in the two upswings are about the same, the boom of 1972-1973 starting, however, from a somewhat higher level. The upswing of 1977-1979 has been slower than that of 1971-1973 and has also lasted longer. In the middle of 1979 the curve was located not far from the zero-line, i.e., relatively close to a "balanced" situation corresponding to the one reached in the fourth quarter of 1972.

In chart 4.2 the development of "demand pressure" is compared for five countries: Italy, France, Belgium, Federal Republic of Germany and the Netherlands. Initially (i.e., in the fourth quarter 1971) the countries were situated at very different levels of "demand pressure". They then moved upwards and all peaked around mid-1973. At that time Italy and France, however, had reached significantly high levels of "excess demand". (The area of "excess demand" between the curve and the zero-axis was also relatively large.) In Belgium "excess demand" was relatively small and in the Federal Republic of

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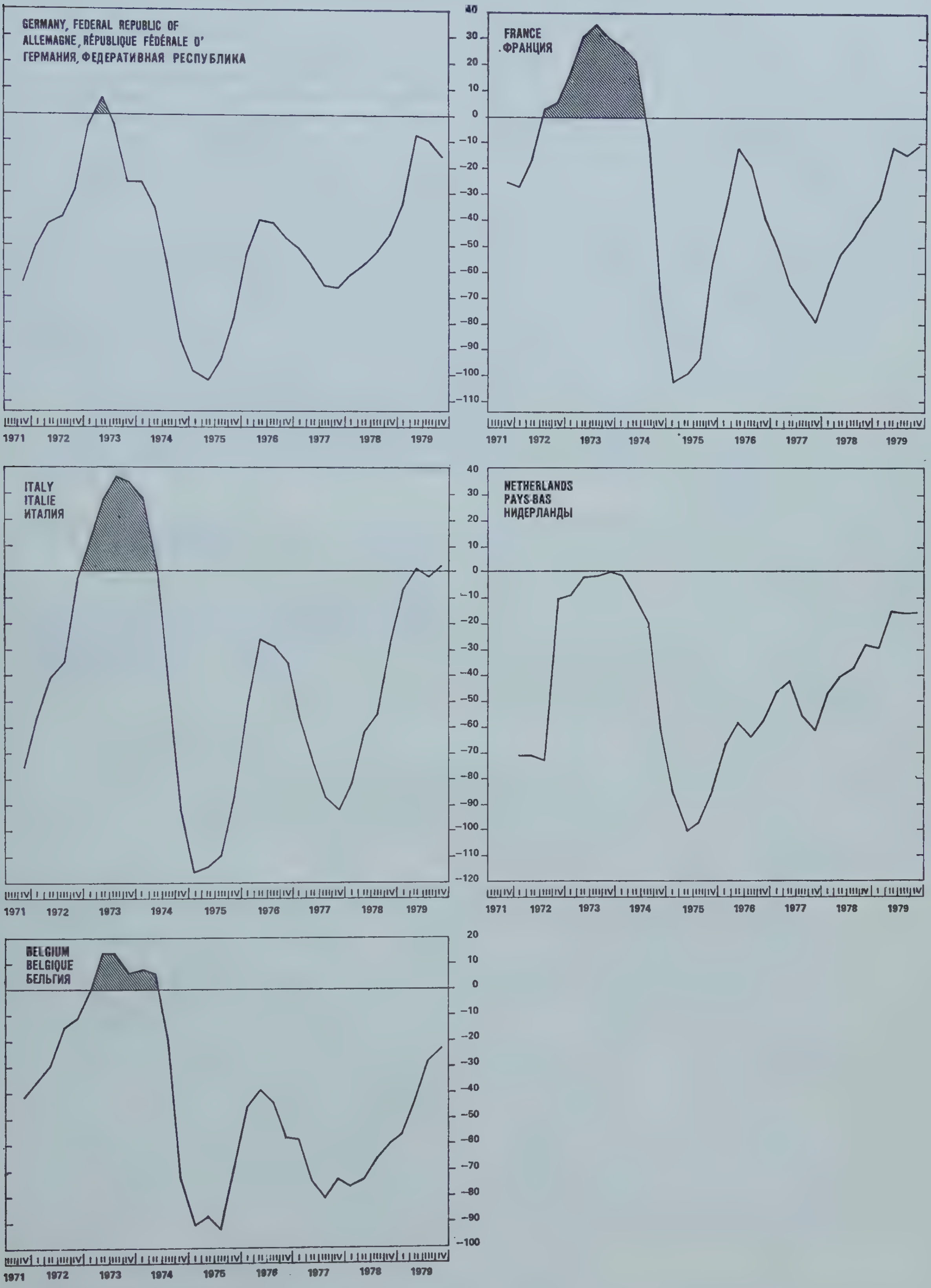
[63] The countries included in the aggregate are the Federal Republic of Germany, France, Ireland, Italy, Belgium, Luxembourg, and (from 1976) the United Kingdom. The figures used here are not seasonally adjusted. "Demand pressure" is the difference between the percentage balance of respondents indicating more than sufficient and insufficient orders and the similar balance for inventories.

[64] The peak occurred at a numerical value of about 64, implying that the share of total replies expecting rising prices was 64 percentage points larger than of those expecting falling prices.

CHART 4.2

Demand pressure: selected EEC countries

(*Quarterly averages of monthly data: for total manufacturing industry*)



Source and notes: As for chart 4.1.

Germany insignificant. The Netherlands maintained a balanced position during a whole year (second quarter 1973 to first quarter 1974).[65]

The bottom following the peak in 1973 is for all countries centred around the second quarter of 1975. In those countries which had had a relatively intense and prolonged period of "excess demand" the downswing was relatively deep (measured from the preceding peak). Thus Italy and France reached about the same bottom levels as the Federal Republic of Germany and the Netherlands, the latter countries starting the fall from much lower levels. Thus in the recession of 1975 all countries moved into greater cyclical conformity.

The "miniboom" in 1976 was also very well synchronized as the peak was reached in the second quarter of 1976. (The Netherlands exhibits, however, a different pattern with the two "minipeaks".) But the spread between the countries was widening again as, e.g., France was close to a "balanced" position. The following bottom was, again, closely synchronized in the second half of 1977. From this point the "excess demand" indicator, in all countries climbs steadily to a "balanced" position in the middle of 1979. Thus whilst during the upswing 1972-1973 there was a wide cyclical spread among the countries discussed here, there was a convergence towards the end of the "oil price" cycle. The peaks and troughs are closely synchronized throughout the period.

This synchronization may well be accounted for by the economic integration of the European Economic Community member countries and a certain measure of policy co-ordination. It is also clear that countries like Belgium and the Netherlands cannot, except in the short run, conduct an economic policy independent of the Federal Republic of Germany. These three are also the countries that show the closest coincidence not only with regard to the timing of changes in "demand pressure" but also to its intensity.

Chart 4.3 contrasts the development of the European Economic Community as a whole, as discussed in relation to chart 4.1, with an outside country with a different strategy of demand management, namely Sweden.[66] This chart includes the boom of 1969 in order to show that in that year the peak of "demand pressure" culminated at about the same time in Sweden as in the European Economic Community as a whole;[67] the following trough also occurred at about the same time, i.e, in the second half of 1971. In the following boom the timing, however, was quite different. Sweden pursued an expansionary economic policy in the hope of avoiding the recession abroad and of a relatively rapid revival of export markets, a hope which did not materialize. The downturn, however, was postponed for about one year in relation to the European Economic Community. Sweden's "demand pressure" moreover climbed significantly above the peak of the European Economic Community's. The cyclical phasing of Sweden became untenable and the ensuing recession was deeper and more prolonged than that of the European Economic Community. Thus the very distinct "miniboom"

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[65] It might to some extent be arbitrary to compare *absolute* levels of "demand pressure" as between countries. The curves, however, do lend themselves to comparisons between the timing of peaks and troughs and of *relative* shifts between turning points.

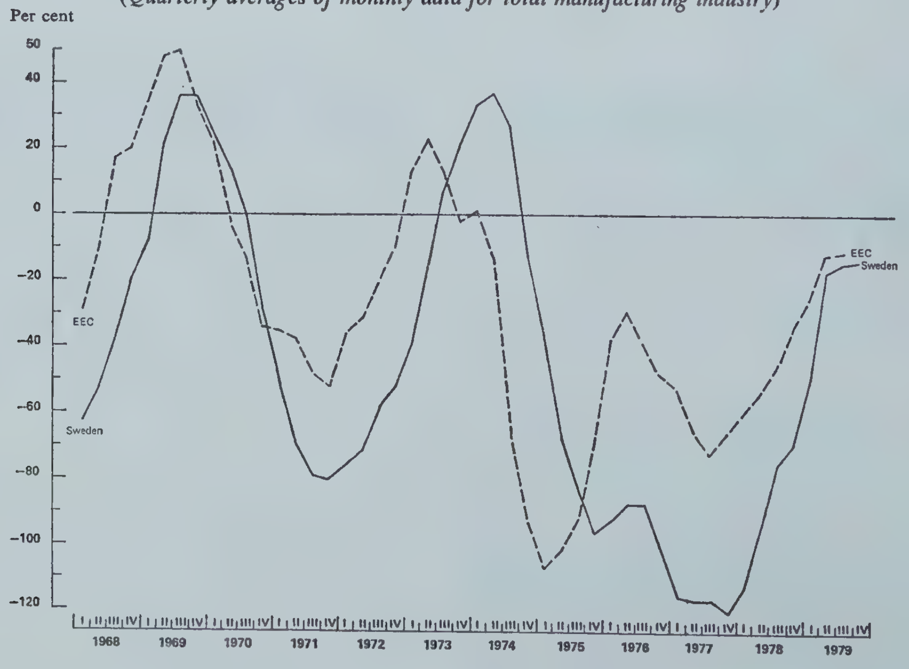
[66] Chart 4.3 is taken from Börje Kragh, " An instant business cycle indicator", *Exchange and Credit*, No. 3, Sveriges Riksbank, Stockholm, 1979.

[67] The Swedish figures are reported for the last month of each quarter. The European Economic Community quarterly data are three-month averages. In the article referred to in the above foot-note—and thus in chart 4.3—the European Economic Community data, for comparison, also refer to the last month within each quarter. There are thus slight discrepancies between the curves for the European Economic Community "demand pressure" in charts 4.1 and 4.3.

CHART 4.3

Demand pressure: Sweden v. EEC

(Quarterly averages of monthly data for total manufacturing industry)

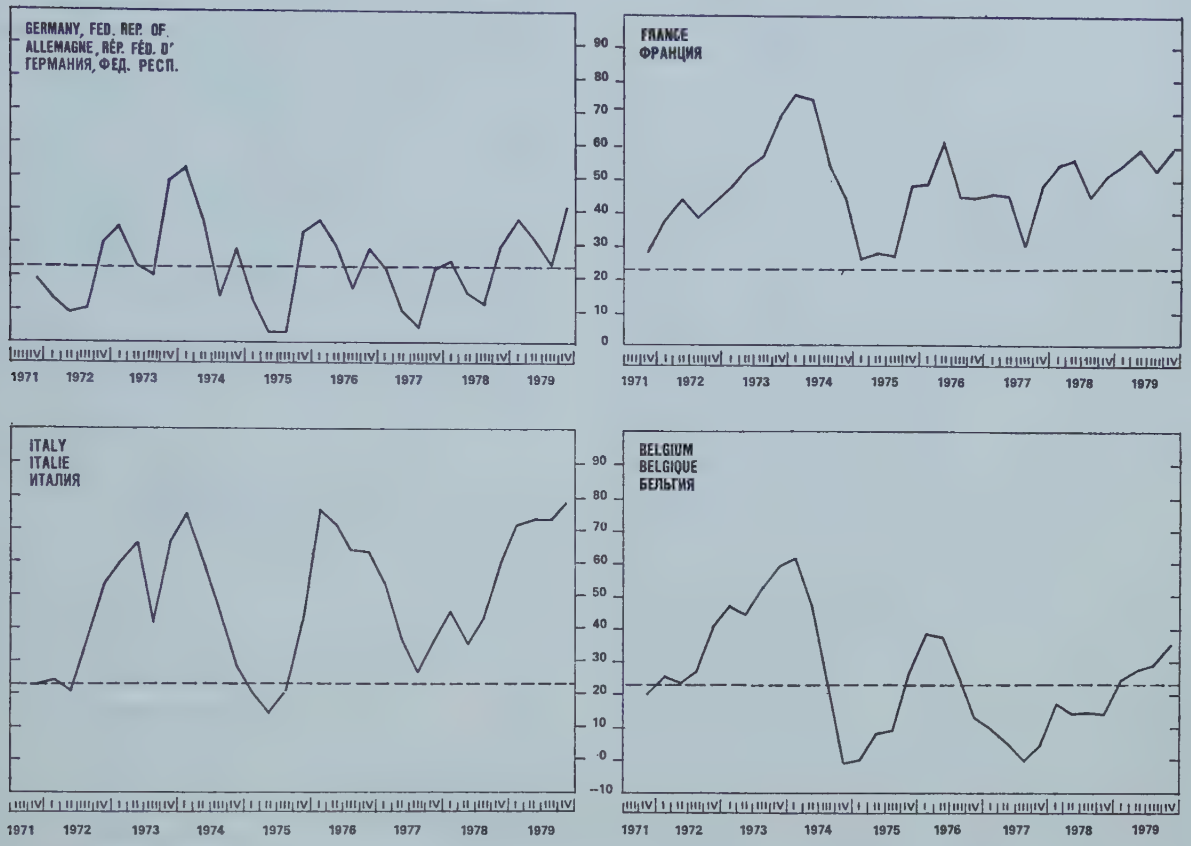


Source: For the EEC, as in chart 4.1 above; for Sweden, Konjunkturinstitutet.

CHART 4.4

Price expectations: selected EEC countries

(*Quarterly averages of monthly data: for total manufacturing industry* [a])



Source: As for chart 4.1.

[a] Difference between the percentage of respondents giving positive and negative replies.

of 1976 in the European Economic Community is hardly visible for Sweden. The "gap" between the curves gradually became very large. It was still sizeable in 1977 when Sweden depreciated. In 1978 and 1979 the recovery, as measured by "demand pressure", was relatively rapid in Sweden, and towards the end of 1979 both curves are situated at about the same level.

In chart 4.4 the expectations of enterprises concerning their selling prices are given for four European Economic Community countries.[68] It can be noticed that these countries were within a fairly narrow range around the horizontal dotted line, which denotes the arithmetic average for the four countries in the final quarter of 1971. The following peak occurred at the same time for all four countries, namely in the first quarter of 1974. By then the spread had become visibly larger between the Federal Republic of Germany and Belgium on the one hand, and France and Italy on the other. This is the same partition that has been observed already with regard to the levels of "demand pressure" of the respective countries.

For the Federal Republic of Germany and Belgium the expectations curves go down towards the zero-line in the first half of 1975 and then again in the third quarter of 1977. On these occasions there were thus as many enterprises expecting falling prices as were expecting rising prices. To that extent the inflationary situation was even better than in the recession preceding the oil price crisis. In France and Italy, on the other hand, the prevalence of inflationary expectations was about the same as at the end of 1971. The spread that developed between the two groups of countries during the boom of 1973-1974 thus remained intact.

From the low levels of 1977 the price expectations curves have been generally rising. The positions of Belgium and the Federal Republic of Germany towards the end of 1979 were only slightly above the levels of eight years earlier. For both countries, nevertheless, "demand pressure" was higher (see chart 4.2). For France and especially Italy on the other hand the price expectations curves were considerably higher than in 1971. In France the level is about the same as at the "minipeak" in 1976 but much lower than the peak of 1974. In Italy the 1976 peak was as high as in 1973 and the curve is now back at that same level. The spread between the two groups of countries is now larger than it has been at earlier peaks and bottoms. Thus although "demand pressures" have tended to converge (chart 4.2), inflationary expectations have tended to diverge.

One conclusion that might be drawn from the charts is that inflationary expectations have not become so firmly rooted or ingrained in all countries as is often assumed in the discussions about an overriding need for a long-lasting and persistent fight against inflation. In a low inflation country like the Federal Republic of Germany present inflationary expectations would not appear to be a major obstacle to an expansionary policy. Some differential demand developments may actually be required in order to reduce the inter-country spread of inflationary expectations. The mere convergence of "demand pressures" has not had any noticeable impact in this respect.

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[68] The Netherlands, which is represented in chart 1.4, do not publish the expectations series. They are, however, included in the expectations curve in chart 1.3 for the European Economic Community as a whole.

For the United Kingdom comparable survey information is available only since the second half of 1976. In the United Kingdom, as in the other four countries discussed above, there was at that time a peak in the "demand pressure", differing from the others, however, with respect to its intensity. Numerically there was actually an "excess demand" in the fourth quarter of 1976 at a level only slightly lower than in Italy and France in 1973-1974. The "demand pressure" in the United Kingdom fell dramatically in the first half of 1977 and has since stayed relatively flat and, contrary to the other countries, far below the peak of 1976. The price expectations curve was also very high in the United Kingdom in the second half of 1976 reaching a level above the maximum peaks that the other countries had attained at the beginning of 1974. Since 1976 price expectations in the United Kingdom have fallen, and at the end of 1979 they were about the same as for the European Economic Community as a whole.

The *consumer surveys* are akin to the business surveys.[69] The price expectations series of the consumer surveys differ, however, from those of the business surveys in the sense that the consumers are guessing about future price changes whilst the enterprises are themselves setting their own selling prices. The consumers' price expectations thus have much less predictive power. The price expectations of consumers also appear to be particularly volatile in the very short run and therefore do not lend themselves to the kind of international comparisons of levels that has been tried above on the basis of business surveys. The price expectations of consumers are nevertheless of interest both because they might influence spending and savings and as an indication of the inflationary "mood" of an important part of the public.

The yearly averages in 1976-1977 of judgements about price trend in the past twelve months have been consistently below the judgement in 1975 and significantly below the corresponding level for 1974. The expectations of consumers with regard to the next twelve months, however, have been higher than in 1975 in each of the years 1976-1979. *Ex ante* judgements thus seem to consistently overstate the actual outcome for the same year, as is shown in the following table.

Price trends
(1975 = 100)

	Over next 12 months	*Over last 12 months*
1974	111.2	106.2
1975	100.0	100.0
1976	101.0	97.7
1977	102.5	95.8
1978	102.1	85.2
1979	111.7	92.5

Source: Commission of the European Communities, *European Economy*, Supplement—Series C, December 1979.

During 1979 inflationary expectations in the Federal Republic of Germany and France have tended to become more intensive even than in 1974. The development in the Federal Republic of Germany is a striking example of the volatility of consumers' expectations as, according to the October survey, they reached a level that was far above the 1974 average and also significantly higher than in any other country. In the United Kingdom, on the other hand, inflationary expectations have been receding during the course of 1979. According to the October survey a very sharp drop in expectations coincided with a very sharp rise in the expectations about future unemployment. There was thus a kind of Phillips curve trade-off between these two expectation variables. (There was, however, no such development in the price expectations of entrepreneurs.)

The changes in the price expectations of consumers in various countries over 1979 are indicated in the following table.

Price trends expected over the next twelve months
(1975 = 100)

	October 1978	*October 1979*
Belgium	95.1	109.7
Denmark	105.9	109.6
France	112.8	118.2
Germany, Federal Republic of	99.2	126.8
Ireland	85.5	94.3
Italy	107.7	119.4
Netherlands	89.2	103.0
United Kingdom	103.4	95.5

All general indications of *household sentiment* in all the European Economic Community countries dropped significantly (particularly in the United Kingdom) according to the survey of October 1979: the consumer "confidence" index, the index of the expected financial situation of households over the next twelve months, and the index of the expected general economic situation over the next twelve months. There are significant falls in the expectations of savings over the next twelve months in Denmark, France, Italy, Belgium and the United Kingdom; elsewhere they remain unchanged. Borrowing intentions are more cautious which appears natural in view of the increased restrictiveness of monetary policies everywhere. Decreased borrowing and waning confidence would be compatible with the presently rather indecisive intentions to make major purchases in spite of the intentions of reduced savings. All in all the consumer surveys give little indication of buoyancy in this major area of overall demand.

(iii) Present policies

The near future will pose a serious challenge to the handling of economic policies in the industrialized market economy countries. They are now in a situation similar to that which got out of hand after the large rise in the real oil price in 1973. Further increases of relative oil prices are by no means improbable and may even have to be coped with on a routine basis. Developments in 1979 were similar to those in 1973 insofar as an oil price increase coincided with already mounting inflationary pressures. After 1973 these two factors reinforced each other and resulted in a price-wage spiral which was at the core of the stagflation problem and which proved very hard to break. It seems to be generally accepted that the key to a future balanced growth is to prevent such an inflationary process from getting under way again.

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[69] The consumer survey results are published by the Commission of the European Communities for all member countries in *European Economy*, Supplement—Series C.

The fight against inflation is thus given over-riding priority.[70] The previous strategy of trying to find the narrow path which would allow a simultaneous dampening of inflation *and* significant growth now appears to be virtually discarded. The present strategy seems to be that inflation rates have to come down significantly before explicit consideration can be given to faster growth. The efforts to keep down inflation are seen in restrictive economic policies everywhere. General demand is also dampened by the increases in energy prices that will be passed on to final consumers. The outlook is therefore for a low and, in some countries even a negative, rate of growth. It will thus hardly be possible to avoid the poor productivity performance which usually goes together with output stagnation. Real income will be further reduced by losses in the terms of trade, although these are not as large as they were in 1973-1974.

In the first few years after the first round of oil price increases in 1973, real wages increased significantly faster than productivity. This process was accommodated by lenient economic policies and by deteriorating current balances. The increases in real wages nevertheless caused a drastic shrinking of profit margins and an erosion of the financial positions of enterprises. This time there will obviously be no policy accommodations; monetary policies are being tightened everywhere and this also requires a restrictive budget stance. These policies might—directly and indirectly—hold real wage claims in line with productivity development without an accompanying wage-price spiral.

After 1973 only passing attention was given to the problem of adapting consumption and production structures to the change in relative energy prices. Initially, incentives were given to energy conservation and investment, but, generally speaking, economic policies focused on short-term adjustment problems. This time much more attention is being given to the possibilities in a medium-term perspective, of achieving reductions in the growth of energy consumption, particularly through the use of the price mechanism. A main aim, of course, is to reduce the dependence on oil imports. In this approach there is however some risk that the traditional concern about short-term economic developments of growth and employment will be pushed into the background. As is common in the history of economic policies the pendulum will swing as changing weights are given to targets and changing assignments to policy instruments. In such situations there is always the risk of over-reaction in the effort to avoid past mistakes and learn from experience.

The change in approach is perhaps most obvious in the widespread intentions to stabilize *exchange rates*. This now seems to have become a first line of defence against inflation in several countries where previously a change in the exchange rate was viewed as an instrument for restoring competitiveness and improving the external balance. Countries with large deficits and/or high inflation will avoid depreciation as far as possible because of fears of the inflationary spiral that such a policy may cause, particularly if coming on top of large increases in energy prices. In an atmosphere of inflationary expectations in such countries there are risks of a rapid throughput from import prices to consumer prices and from export prices to wages. Often, however, countries do not have control over their exchange rate as when these come under heavy "attack" from international capital movements. To some extent, international co-operation has helped to neutralize such attacks which, however, might recur if future efforts to stabilize exchange rates cover up increasing differences in purchasing power.

Insofar as costs in one country may diverge sharply from developments in competitor countries, changes in nominal rates nevertheless will still have a role to play. Such changes were, after all, not without success in redressing the large external imbalances that appeared after 1973. Nominal exchange rate adjustments represent furthermore an area—and perhaps the only one—where international co-ordination of the use of national policy instruments might be feasible. The aim of that co-ordination need not be a policy of no change. The procedures inside the EMS indicate the possibilities of international co-ordination and instrumental use of exchange rates.

There are of course means other than nominal exchange rate changes to achieve adjustment in real exchange rates, namely relative changes in nominal wages and/or in productivity. But these options do not seem to offer any practical opportunities for international, and co-operative or speedy solutions.

Besides changes in nominal exchange rates, the short-term route changing real exchange rates is through differential nominal wage changes. But here all countries are engaged in concentrated efforts to dampen money wage developments. This is similar to competitive appreciations which are as mutually inconsistent as competitive depreciations. Some countries will emerge with appreciated and others with depreciated real exchange rates. It is not at all certain, however, that these rates will move in the right directions from the point of view of the required relative adjustments. Such developments might eventually quench inflation but the dangers—as shown already in the 1920s—are instead on the side of growth and employment. In principle the long-term solution for countries with structural external deficits is to direct investments towards the trading sectors in order to raise productivity and production capacity there; the surplus country should hold back expansion in that same area. Such a development would be facilitated if capital flows moved in the "right" directions. So far however, there is no strategy and much less any mechanism for these kinds of adjustment.

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[70] See OECD, *Economic Outlook*, December 1979, p. 8: " Governments have no choice but to give first priority to countering inflation", and Commission of the European Communities, *European Economy*, November 1979, p. 11: "The first and immediate need, given the oil price be fully communicated to the consumer, is to prevent a secondary rise in the rate of inflation".

Choosing exchange rate stabilization as a goal puts an increasing burden on *monetary policy* to fight domestic inflation and, in deficit countries, to improve competitiveness. The general strategy is to set monetary targets in line with a stable or declining rate of inflation and, thus, not to allow any accommodation of price increases caused by rising energy costs. The implication is rising nominal rates of interest. This stringency will be taken even further to the extent that rising short-term interest rates are used to cover up or neutralize the effects of progressively diverging inflation rates at unchanged exchanges rates. There is thus a risk that adjustment problems are bottled up in the same way as happened at the beginning of the 1970s when floating was introduced.

The main purpose of monetary policy is to dampen the price expectations of households and enterprises. The information discussed in the preceding section of this chapter indicated that price expectations of enterprises were indeed very inflationary in some countries. From that point of view one might have argued that monetary policy should have been tightened towards the end of 1978 when expectations started to climb (see chart 4.1) instead of from about the middle of 1979.

The survey of expectations showed, however, that expectations—particularly those of households—can be revised downwards rather rapidly. There is thus a danger of "overkill" by domestic policies in the sense that a recessionary impact might be given to the economy which is unnecessarily large in view of the desired effect on expectations. The risks of massive deflationary impacts are also inherent in the emphasis on a relatively rapid convergence of actual inflation rates through the use of monetary targets. Money wages would have to come down most in the high-inflation countries, but since money wages are sticky, profit margins are likely to be severely squeezed in the process. This would have an adverse effect on investment and productivity, which is particularly dangerous in countries which require a strengthening of their competitiveness.

Increasing importance has been given lately to the *real* rate of interest as a guideline for monetary policy. It is recognized that changes in monetary aggregates are sometimes difficult to interpret and control. One simple guideline would be to aim at a *positive* real rate of interest. This would exert a certain discipline over monetary policies and assure a minimum rate of return on financial savings. One difficulty however, is that if countries generally aim at exchange rate stabilization and set their monetary targets accordingly, the medium-term nominal rate of interest can no longer be freely set by policy-makers. In the short run the nominal rate of interest is required as an instrument to defend the exchange rate target against speculative capital movements. In the long run the differences between the real rates of interest in various countries should reflect their roles as structural importers or exporters of capital. It can be argued that such long-run developments are taken care of by "market forces". However, this might not be the case so long as there are extensive controls and non-economic factors in several countries affecting inflows and/or outflows of capital. These controls are in contrast to the freedom of trade flows and may actually be an important obstacle to long-run adjustments of national production structures.[71]

The more exchange rates are pegged, the less scope there is for international harmonization, either of interest rates or money supply targets. There is, however, one area of monetary policy where international co-operation seems to be essential, namely, recycling facilities. There is a risk that the apparent ease with which these facilities were provided after 1973 will lead to an unwarranted complacency about this problem. Presently, the focus of attention is on the risks related to an over-expansion of the Euro-currency market which is seen both as a source of international liquidity and a threat to the international monetary system. Proposals have been made to enlarge the role for official recycling of the OPEC surplus. This seems to be very appropriate and necessary to the extent that private intermediation can no longer carry the risks related to the increased debt burdens of those countries which already are in a weak position and are further adversely affected by events over which they have no control. One of the main tasks of private capital on the other hand, is to find and finance new investment opportunities with a rate of return that is high enough to attract the financial savings of the oil-producing countries. To the extent that these financial flows go into existing real capital assets, they will not only exert a depressive effect on the world economy but also exert an inflationary demand pressure to which there is no immediate response in terms of production and employment.

The general restrictive stance of monetary policies at present is also linked to a tightening of *fiscal policies*. There is now much less scope than in 1974-1975 for individual countries to deviate from the international pattern. After 1973 several countries ran large budget deficits and resorted to borrowing abroad, the servicing of which has become a burden on the balance of payments. Small countries in particular will be constrained by the course taken by larger countries. One would therefore expect the slowdown envisaged in the immediate future to be sharper than generally expected in the national forecasts.

The expected slowdown in the immediate future might be sharper and last longer than foreseen in the present national forecasts if Governments stick to a generalized and persistently restrictive set of policies. The 1974-1975 experience provides a lesson on the harmful effects of a stop-go policy on both inflation and growth. The restrictive policies of 1974 were followed by generally very expansive fiscal policies in 1975, when it became apparent that the enterprise sector could no longer continue to absorb the deficits arising from the higher oil price. These developments suggest therefore the need for moderation in pursuing a restrictive policy if the need for a subsequent sharp change in direction is to be avoided. It might perhaps be useful to prepare contingency plans for a timely change of policy in the event that present expectations with regard to the immediate future proved to be significantly too optimistic.

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[71] Cf. J. H. Forsyth, "Symmetrical Treatment of Surplus Countries" in Robin Major (editor), *Britain's Trade and Exchange Rate Policy*, NIESR, Economic Policy Papers 3, London, 1979.

The main factor that, on present policies, could propel the industrialized countries into a sustained upswing is private investment. There are several reasons for believing that private investment could again play such a role. From mid-1978 to mid-1979 there were promising signs that such a development was under way, although the outlook has now deteriorated, because of the renewed uncertainties about inflation and over-all growth.

Private investment is actually a sector for which exceptions are generally made to the general restrictiveness of policy. It is furthermore likely that enterprises may be increasingly motivated to avail themselves of the fiscal stimuli offered to them in the form of subsidies, tax advantages, etc. These stimuli are especially directed towards investment in energy conservation and energy production. An expansion of investment in this field was widely anticipated after the large increase in the oil price in 1973 but the actual performance has been generally disappointing. The reason probably is that the decline in real oil prices following the initial increase made the investment advantages in this field look temporary and uncertain: compare the striking variations in the retail price of petrol relative to the consumer price index in table 2.7. Such hesitations may be removed by the second real oil price increase, particularly if Governments now follow a more consistent policy with regard to relative domestic energy prices. Governments may also become more interested in encouraging energy conservation in the household sector, which could give rise to considerable employment effects. The efforts after 1973 in this direction seem to have been relatively modest.

There are also reasons to expect that the motivations to invest will increase generally because of a progressive obsolescence of the existing real capital stock. The obsolescence is a consequence of the strong investment wave in the late 1950s and 1960s. These investments should, assuming a normal life-span, now be ripe for replacement. This "echo effect" should, furthermore, be enhanced by the unusually low investment levels after 1973. A general condition for a favourable development of investment, however, is that capacity utilization is not depressed and profits squeezed as happened after 1973. In such a situation special investment incentives are ineffectual. The experience since 1973 shows that a short-run trade-off between growth and inflation may be a misleading indicator of policy effects. In the longer run the gains made through holding back growth might be more than lost through the damage done to productivity. In that case the short-term trade-offs would become progressively more disadvantageous and the fight against inflation become continuously harder. In the long run the real capital stock would then become an over-all restriction on growth.

The need for restrictive economic policies would be less to the extent that there were independently effective *incomes policies*. Here again the experience of the 1970s is not very encouraging. It is possible, however, that a learning process has made the labour market partners more aware of the need to adjust to changes in "real" factors. The core of this adjustment is to link broadly real wage changes to changes in productivity without initiating a wage-price spiral. From time to time schemes have been proposed that focus directly on this relationship.[72] Any simple scheme of guidelines for wage setting, however, leaves unsolved the problem of labour's rightful concern that acceptance of the guideline could lead to excessive profits. This concern could be met in principle by agreeing that unexpectedly large profits would call for a second round of negotiations leading to the introduction of an excess profits tax or a reduction of income-tax rates.[73] A more direct way of compensating wage-earners through profit-sharing would be in the form of funds set aside by firms collectively or individually. These funds could be earmarked for investment purposes. (Schemes of this kind are presently being discussed, for example, in Sweden.)

Guidelines for wage-setting will have to take into consideration the reduction in the scope for real wage increases caused by losses in terms of trade through increased oil prices. They can, of course, be offset by a lowering of indirect taxes to the extent that the general price level would be unaffected. Thereby the dampening effect on over-all demand caused by the oil price rise would also tend to be offset. The price impact would then hit the budget and be reflected in a worsening of the current balance.

An opposite policy would be to let consumers bear the full impact of the energy price increase, and even to levy additional energy taxes in order to anticipate further oil price increases. Special consideration (rebates, etc.) might be given to enterprises in order to preserve their profits and thus maintain the investment incentives. To prevent any part of the burden from falling on the budget, indirect taxes might be raised. This would be a strategy that relied on demand restrictions rather than guidelines to achieve wage restraint.

The two policy options described above are examples of the way in which changes in energy prices are incorporated in macro-economic policies. The importance and the role of the energy price element in these considerations varies from country to country, depending upon its rate of inflation, balance of payments, business cycle position, etc. They do, however, also represent a starting point for a strategy that specifically aims at a reduction of the dependency on imported energy. Such a strategy failed to materialize after the first oil price increase.

(iv) Petrol pricing

There seems to be a general consensus that, more than in the past, present and future increases in oil prices should be reflected in the relative energy prices facing consumers.

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[72] One idea is that wages and salaries in an economy should not be paid according to the relevant contractual rates, but should be corrected by a "national pay adjustment factor". The value of the national pay adjustment factor would be determined by taking into account the average increase of contractual pay rates and the growth of average productivity in such a way that the aggregate wage and salary bill of the economy should not expand faster than what was compatible with a stable price level or with any other rate of inflation deliberately aimed at. See P. G. Elkan, "Proposte relative ad una politica salariale nei paesi economicamente sviluppati" (A suggested wage and salary policy for developed countries), *Economia Internazionale*, May 1965; and Maurice Scott, " A new way to attack inflation", *The Banker*, April 1974.

[73] Cf. the proposal by Henry C. Wallich in a speech reported in *BIS Press Review*, 12 October 1979.

Thereby the terms of trade losses would come through as a reduction of the real income of the private as well as of the public sector. Relative increases of energy prices would, furthermore, motivate households and enterprises to shift to energy saving consumption and production patterns. These are very general guidelines, the macroeconomic implications of which were briefly discussed in the previous section. There are, however, also microeconomic aspects which to some extent have been neglected in the sense that the policies pursued do not necessarily conform with the stated over-riding aims of energy policy. A case in point is petrol pricing, which will be discussed here using as factual background the analysis of petrol prices on pages 31 to 37 above. This case demonstrates that it is important to make clear the characteristics of any particular sector with regard to its responses to changes in energy prices. From this follows the need to formulate energy price policies which are consistent with these sector characteristics and also the need to maintain the relative price relationships once they are initiated. This is necessary to stabilize relative price expectations and thereby achieve the intended allocation effects.

The broad conclusion from the analysis of petrol prices is that the real cost of private transport did not rise very much between 1973 and the first three quarters of 1979: of the countries discussed, the largest average year-on-year increase was in Italy. Within the total costs of running a private motor car, the incentive to economize on maintenance and repair costs has been as great if not greater than to economize on petrol consumption, while, apart from an initial deterioration in some but not all countries, the price competitiveness of private, relative to public, transport has tended to increase in recent years. Government policy, at least in respect of duties on petrol and annual taxes on vehicles, has if anything tended to slow down the rate of increase of retail petrol prices and to offset part of the growth in the running costs of private vehicles. At the same time the rising real price of public transport in several countries is, at least partly, related to a general relaxation of price controls and incomes policies (which tend to lean heavily on the public sector) in recent years, as well as to a reduction in rates of subsidy in the wider context of reducing public sector deficits (a widespread policy objective since 1975). The price signals reaching the consumer over the past six years thus have not in general provided any great incentive to reduce petrol consumption. Given that the demand for petrol is relatively price inelastic in the short run, and relatively income elastic, there is no mystery as to the continuing rise in *per caput* petrol consumption in western Europe.[74] It should perhaps be remembered that throughout most of the years after 1973 to date, real disposable incomes in the industrial market economies have been rising.

The events of 1979, including the highly publicized shortages of petrol in the United States, have led to new declarations of determination on the part of Governments to implement, and perhaps greater willingness on the side of consumers to entertain, more effective measures to restrain the growth of consumption of oil products. In the case of petrol, as noted above, greater use of tax and price incentives is being widely urged. This proposal is based on a belief in the efficacy of the price mechanism in securing resource re-allocation through relative price movements. But individual price increases can have generalized inflation effects which are counter-productive to the allocative efficiency of the price mechanism. The case of petrol prices is but a particular instance of this macro-problem. If a rise in the real product price of oil, whether due to higher taxation or higher OPEC prices, sets off a general scramble to maintain real wages then the rise in the relative price of oil will be short-lived. Indeed the prices of services, including motor car repairs and public transport, are likely to rise faster than goods prices so that the final outcome might even be a fall in the relative price of petrol.

In order to bring about a significant increase in real energy prices without provoking a renewed acceleration of inflation, in principle any increase in energy taxes would have to be offset by cuts on other products. Such offsetting tax cuts would not only leave the over-all level of consumer prices unchanged but also amplify the relative price effect.

Since the strategic objective of policy is to reduce oil imports, Governments will have to take a view of what the relative price of oil should be in order to secure the desired reduction. Once it has such a view then a government can use its energy tax not only to prevent the real price from falling but also to stabilize it over time.

The real price of oil has fluctuated sharply in western Europe since 1973 and it is an important question whether such instability has obscured the allocative signals which the consumer is supposed to be receiving from the market. And there is no reason at present to suppose that crude oil prices (in real terms) will not continue to fluctuate sharply as producers continue to make their prices in dollars. Sudden upsurges would then be the occasion for a temporary reduction in the energy tax so as to avoid setting off a general upsurge in prices. The alternative would be to tighten monetary and fiscal policy, but this response has itself been partly responsible for the fluctuations in oil prices: the deceleration or fall in activity leads to falls in the real price which discourages the very adjustments which, in the medium and longer run, would lessen the impact of higher oil prices.

In order to implement an effectual energy tax policy, Governments would have to evaluate carefully the effect of energy prices on energy demand. The discussion of petrol prices and the costs of private motoring above (section 2 (ii)), suggests that a blanket tax on all oil products, whether an import duty or a sales tax, may not alone be the optimal policy. For private transport, total costs have risen and fluctuated less than petrol prices because of offsetting movements in the real price of other inputs and vehicle taxes. In this case the target variable should be total running costs of a private vehicle, not petrol alone, although whether the adjustment is borne entirely by petrol or spread over the other inputs and the vehicle tax, is a matter of practical choice. Other possible tax innovations are to convert specific duties on petrol into *ad valorem* taxes and to index the annual tax on motor vehicles. These would remove a systematic source of deceleration, in relation to the tax-free prices, in the rate of increase in the real prices paid by the consumer.

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[74] The elasticities, as indicated above, are usually estimated for petrol rather than private motoring consumption. For western Europe, fairly typical short-run elasticities for petrol demand would be in the region of −0.2 for price and 0.5 for income. The corresponding long-run elasticities are around −0.75 and 1.73 respectively. See George J. Kouris, "Price sensitivity of petrol consumption and some policy issues", *Energy Policy*, September 1978.

Of the many non-tax policy measures suggested as means of reducing petrol consumption, improved public transport, speed limits, and the encouragement of more fuel-efficient engines are among the more prominent. Public transport is already subsidized in many countries although the current concern to reduce public sector deficits implies little scope for further increases; and, as shown above, the price competitiveness of public transport vis-à-vis the private car has in fact been falling in recent years. However, since the reduction of oil imports is now regarded as an important objective in western Europe and North America, the question of public transport subsidies needs reconsideration. Although public transport networks have been considerably reduced since the early 1960s, the success of the reorganization of the Copenhagen public transport system and the fact that the Swedish railways are currently making a profit after reducing fares sharply are reminders that there is considerable scope for substituting efficient public transport for private motoring.

The imposition of speed limits, particularly on autoroutes, is still opposed in some countries (usually by the producers of fast motor cars) on the grounds that the resultant energy savings are small. Whether or not this is the case, such limits may have a psychological impact in helping to convince consumers of the need to reduce petrol consumption (without necessarily reducing their consumption of kilometres of private motoring); the introduction and/or tightening of limits might be usefully introduced alongside the introduction of new energy taxes. In so far as lower speed limits reduce the number and severity of motor accidents, public expenditure on health is likely to be reduced thereby releasing resources for, say, improving public transport.[75]

The improvement of the fuel efficiency of motor cars has attracted considerable publicity and is now being given public subsidies in some countries. However the effect on petrol consumption cannot be determined *a priori.* An increase in kilometres per litre of petrol consumed is equivalent to raising the productivity of petrol and, as with any other input, this will reduce the impact of a rise in its price on unit costs. Whether this leads to a fall, stability, or a rise in petrol consumption will depend, *ceteris paribus*, on the elasticity of demand for private motoring (expressed in kilometres) with respect to the change in the real product price of petrol.[76] The same argument, in respect of the uncertainty concerning the effect on petrol consumption, applies to proposals to encourage consumers to switch from large to small engine cars[77] and to set mandatory standards for fuel efficiency. The motor car manufacturer has an interest in improving fuel efficiency because, alongside the reduction of repair and maintenance costs, this helps to keep down the rise in the real product price of private motor car services which of course affects the demand for cars. But the objective of policy is not to increase fuel efficiency *per se* but to reduce oil imports. In other words greater fuel efficiency may undermine the objectives of the energy tax policy. It may therefore be unwise to subsidise the development of greater fuel efficiency in the absence of reliable estimates of the relevant elasticities. If greater fuel efficiency does offset the fall in consumption due to the rise in petrol prices, then governments may have to consider obtaining the required reduction in oil imports either by reducing consumption more severely in sectors other than transport or by rationing petrol.

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[75] "Safer, slower driving" was one of three areas (the others being the reduction of cigarette smoking and the improvement of elementary dental hygiene) which OECD identified as potential sources of *large* savings in necessary medical expenditure. See OECD, *Public Expenditure on Health*, Paris, July 1977, p. 87.

[76] The latest model of a popular French car (the Renault 5) is said to consume (at optimal speeds) some 25 per cent less petrol per kilometre than previous versions of the same car. If this is so then, given that in France the average retail price of petrol rose 27 per cent in real terms between 1973 and 1979 (table 2.7), the real petrol cost of 100 km motoring will have fallen by nearly 5 per cent for someone who switched from a previous model to the new one.

[77] If, to take the example of the cost calculations given in table 2.10, a Swiss motorist were to switch from the large Volvo to the small Citroën, his total running costs (including depreciation) would be reduced by about 64 per cent, but only 15 per cent of the change in total costs is due to lower expenditure on petrol. He could thus decide to maintain his previous expenditure on petrol by using his car more intensively and driving faster, while still maintaining a large reduction in his total motoring costs.

5. EXPORTS TO THE OIL-EXPORTING COUNTRIES, 1973-1978

In the five years following the quadrupling of oil prices in 1973, the imports of the twelve principal oil-exporting countries increased from $20 billion to $103 billion. In terms of volume, these imports almost tripled. This rapid and enormous expansion was unprecedented in the post-war period and, occurring at a time when international trade was depressed, had a significant impact on the development and pattern of world trade. Although the growth rate slowed down sharply towards the end of the 1970s, and import volume actually declined in 1979, the large oil price increases during the past year are likely to make the oil-exporting countries the world's major growth market in the early 1980s, as in the mid-1970s.

This section examines the growth and structure of western and southern Europe's exports to the principal oil-exporting countries between 1973 and 1978,[78] with particular emphasis on three aspects: first, relative export performances in this market; second, changes in "revealed" comparative advantage of the developed market economies exports; and, third, the impact of this export growth on western Europe's over-all trade position. The United States and Japan, as the two largest non-European exporters to this market, are also included in the analysis for most purposes.

Following the practice in the rest of the *Economic Survey*, "Western Europe", refers to the 13 countries of the EEC and EFTA, less Portugal and Iceland, and "Southern Europe" to Greece, Portugal, Spain, Turkey and Yugoslavia. "Total western Europe" includes both these country groupings, and the term "developed market economies" is used to denote the eighteen countries of western and southern Europe plus the United States and Japan. The "oil-exporting countries" cover the twelve principal developing countries in this category in the 1970s: Algeria, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Oman, Qatar, Saudi Arabia, the United Arab Emirates and Venezuela. This differs from OPEC in that Bahrain, Ecuador and Gabon are excluded. Figures are based on the foreign trade data of the developed market economies and, unless otherwise stated, are in current US dollars.

The growth of the oil-exporting countries' imports from all sources is outlined in sub-section (i). The next two sub-sections summarize the expansion of the developed market economies' exports by countries and by principal commodity and product groups, and these data are used in sub-section (iv) to analyse relative export performances in this market in the 1973-1978 period. The following sub-section examines the principal changes in the pattern of "revealed" comparative advantage of the 20 developed market economies' exports to the oil-exporting countries. In sub-section (vi), the impact of the increases in these exports on western Europe's over-all foreign trade position is outlined. A brief summary of the principal findings is given at the end.

(i) The growth of the oil-exporting countries' total imports

The value of the oil-exporting countries' imports from all sources increased by at least one-fifth in every year between 1972 and 1978. In the immediate aftermath of the 1973 oil price rise, annual increases were as large as three-fifths, though the rate of growth subsequently slowed down markedly. As a share of world trade, the oil-exporting countries' imports rose from 3.7 per cent in 1973 to 8.3 per cent in 1978. Despite this remarkable expansion, the twelve countries as a group remained in substantial, although declining, surplus on foreign trade from 1974 onwards. However, the rapid growth of the deficit on services and private transfers helped to reduce the current account surplus very considerably between 1974 and 1978.[79]

Oil exporting countries' total imports and exports

	Imports		*Exports*		
	$ billion	*Percentage increase*	*$ billion*	*Percentage increase*	*Balance $ billion*
1972	14.1		25.0		10.9
1973	20.0	42	39.2	57	19.2
1974	32.5	63	114.3	192	81.8
1975	51.4	58	105.9	−7	54.5
1976	63.2	23	129.9	23	66.7
1977	85.1	35	143.9	11	58.8
1978	103.3	21	140.8	−2	37.5

Source: IMF, *Direction of Trade Yearbook*, 1979.

Much of the above growth was of course attributable to price inflation. Nevertheless, import volume almost doubled between 1973 and 1975, while total world trade in that period showed virtually no growth, a 5 per cent fall in 1975 more or less offsetting an increase of this magnitude in the previous year. The growth rate decelerated sharply in 1976, partly as a result of deliberate attempts by some of the oil-exporting countries to reduce the inflow of imports and partly as a consequence of port and other transport bottlenecks.[80] In 1978 imports increased only moderately, roughly in line with the expansion of world trade, reflecting more restrictive policies in several countries in response to high inflation rates and deteriorating external positions. The marked decline in aggregate imports in 1979 was due in large part to the contraction in Nigeria's and, especially, in Iran's imports.

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[78] For developments in 1979, see section 3 of this chapter.

[79] The combined deficit on services and private transfers is estimated to have risen from $12 billion in 1973 to $35 billion in 1978. The deficit on official transfers remained fairly steady, in the region of $2 billion, in this period.

The initial expansion of the oil-exporting countries' total imports bore virtually no relationship to the development of their aggregate GDP, import volume increasing by some 42 per cent in 1975 when GDP is estimated to have actually fallen slightly.[81] In the mid-1970s, import propensities were quite remarkably high, almost certainly higher than in any other major market in modern times. But from 1976 to 1978, import growth reflected GDP growth quite closely, the implied import elasticity being roughly 2 (though this varied sharply among countries). There were thus two distinct phases for the oil-exporting countries' combined imports in the five years following the 1973 oil price rise: a period of two years during which imports expanded at quite exceptional rates, followed by three years of much more moderate growth. As shown below, however, there were very considerable country and commodity variations to this general pattern.

Some four-fifths of the oil-exporting countries' total imports are from the developed market economies,[82] although the shares of the market held by the principal groups of exporting countries have tended to fluctuate sharply since 1972 (see table 5.1). The developed market economies benefited most from the 1975 import boom, their market share rising by almost four percentage points, at the expense of all other groups. This share declined slightly over the next two years and then rose by a further four percentage points in 1978. But developments in Iran in 1979 may have cut back their share of the aggregate market in 1979.

(ii) Developed market economies' exports to the oil-exporting countries: the country pattern

All 18 of the west and south European countries, as well as the United States and Japan, achieved large increases in the dollar value of their exports to the oil-exporting countries between 1973 and 1978. The combined exports of the twenty countries increased more than fourfold in this period, to $76 billion in 1978.[83]

TABLE 5.1

Oil-exporting countries'[a] total imports, 1972-1978

Year	*Area of origin*					
	Developed market economies[b]	*Oil-exporting countries*	*Non-oil-exporting developing countries*	*Eastern Europe and the Soviet Union*	*Other*[c]	*Total*
			Value in $ million			
1972	11 517	149	1 694	471	267	14 098
1973	15 716	275	2 860	760	388	19 999
1974	23 375	605	4 541	1 145	806	32 472
1975	42 145	863	5 970	1 286	1 111	51 375
1976	51 554	1 571	7 723	1 268	1 091	63 207
1977	68 429	1 876	10 803	1 356	2 603	85 067
1978	87 471	1 783	11 400	1 510	1 179	103 343
			As percentage of total			
1972	81.7	1.1	12.0	3.3	1.9	100
1973	78.6	1.4	14.3	3.8	1.9	100
1974	78.1	1.9	14.0	3.5	2.5	100
1975	82.0	1.7	11.6	2.5	2.2	100
1976	81.6	2.5	12.2	2.0	1.7	100
1977	80.4	2.2	12.7	1.6	3.1	100
1978	84.6	1.7	11.0	1.5	1.1	100

Source: Derived from IMF, *Direction of Trade Yearbook*, 1979.

[a] Countries listed in table 5.4.

[b] Industrial countries, "Other Europe" and Australia, New Zealand and South Africa.

[c] Including countries not specified and special categories.

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[80] By the end of 1975, the average waiting time for ships waiting to unload in the Persian Gulf as a whole was reckoned to be about 60 days, with delays of 150 days at Iran's main port of Khorramshahr. Congestion was at its worst in 1975 and 1976, when ships could wait up to half a year to enter such ports as Jeddah and Dubai. As a result, demurrage is reckoned to have cost Iran something like $1 billion in 1975, while unloading delays were adding nearly 40 per cent to the cost of Saudi Arabia's imports at one point in 1976. Port congestion was equally bad in some other oil-exporting countries: at one time over six hundred ships were waiting to enter Lagos.

[81] See IMF, *Annual Report for 1979*, tables 2 and 3.

[82] The coverage of "developed market economies" in table 5.1 is somewhat wider than that of the 20 countries in this section, including Canada, Australia, New Zealand, South Africa, Gibraltar, Iceland, Malta and Romania (see IMF, *Directon of Trade Yearbook*, 1979).

[83] In volume terms, OECD's exports to OPEC over the same period are estimated to have risen by 183 per cent.

Table 5.2

Developed market economies' exports to oil-exporting countries,[a] 1973-1978

Exporting country	*Values ($ millions)* 1973	1978	*Percentage change from previous year* 1974	1975	1976	1977	1978	*Percentage change 1973-1978*
Austria	120	586	92	60	57	−4	5	388
Belgium-Luxembourg	466	2 175	48	65	15	41	18	367
Denmark	114	566	65	86	6	26	22	396
Finland	52	334	119	19	38	55	14	542
France	1 649	6 231	70	63	2	18	12	278
Germany, Federal Republic of	2 221	12 064	80	69	21	29	14	443
Ireland	16	209	86	147	56	47	25	1 206
Italy	1 200	6 945	85	66	14	36	21	479
Netherlands	567	2 467	48	61	27	19	21	335
Norway	46	192	34	122	33	26	−15	317
Sweden	213	1 128	68	106	38	−5	17	430
Switzerland	353	1 891	50	60	34	33	25	436
United Kingdom	1 618	8 575	50	95	11	32	23	430
Western Europe	8 635	43 363						
Greece	48	489	256	69	26	12	22	919
Portugal	10	34	53	124	−13	16	−6	240
Spain	320	1 642	51	66	2	45	38	413
Turkey	40	203	85	78	−6	20	36	408
Yugoslavia	68	522	120	63	39	16	32	668
Southern Europe	486	2 890						
United States	3 155	15 867	86	62	19	9	29	403
Japan	2 678	14 047	101	54	11	28	19	425
Total above	14 955	76 165	78	66	16	23	21	409

Source: UN Standard Trade Data Tapes.

[a] The twelve countries referred to as "oil-exporting countries" in this and all subsequent tables are listed in table 5.4

Table 5.3

Shares of total exports to oil-exporting countries

(*Percentages*)

Exporting country	*1973*	*1974*	*1975*	*1976*	*1977*	*1978*
Austria	0.80	0.86	0.83	1.13	0.88	0.77
Belgium-Luxembourg	3.12	2.59	2.57	2.55	2.91	2.86
Denmark	0.76	0.71	0.79	0.72	0.74	0.74
Finland	0.35	0.43	0.31	0.37	0.46	0.44
France	11.03	10.56	10.37	9.16	8.79	8.18
Germany, Federal Republic of	14.85	15.00	15.29	16.03	16.80	15.84
Ireland	0.11	0.11	0.16	0.22	0.26	0.27
Italy	8.03	8.36	8.36	8.24	9.07	9.12
Netherlands	3.79	3.15	3.06	3.36	3.23	3.24
Norway	0.31	0.23	0.31	0.35	0.36	0.25
Sweden	1.42	1.34	1.67	2.00	1.53	1.48
Switzerland	2.36	1.99	1.92	2.22	2.40	2.48
United Kingdom	10.82	9.10	10.68	10.26	11.01	11.26
Greece	0.32	0.64	0.65	0.70	0.64	0.64
Portugal	0.07	0.06	0.08	0.06	0.06	0.04
Spain	2.14	1.82	1.82	1.61	1.89	2.16
Turkey	0.27	0.28	0.30	0.24	0.24	0.27
Yugoslavia	0.46	0.56	0.56	0.67	0.62	0.69
United States	21.10	22.01	21.50	22.10	19.43	20.83
Japan	17.91	20.20	18.77	17.99	18.67	18.44
Total	100	100	100	100	100	100

Source: As for table 5.2.

Differences among some of the 20 countries in the rates of increases were very considerable, ranging from a 240 per cent increase for Portugal to a remarkable increase of 1,206 per cent for Ireland (see table 5.2). Particularly high rates were also achieved by Greece (919 per cent), Yugoslavia (668 per cent) and Finland (542 per cent), while below average rates were recorded by France (278 per cent), Norway (317 per cent) and the Netherlands (335 per cent). Annual fluctuations in the value of these exports also tended to differ markedly, though there was a fairly general tendency for rates to decelerate significantly in 1976, in line with the slowdown in the growth of the total market.

These inter-country differences resulted in some substantial changes in market shares (see table 5.3).[84] A major factor in these changes was the large variation in the growth of markets, as regards both countries and commodities, which are examined in the following paragraphs.

The twelve principal oil-exporting countries differ markedly in size, population density, levels of development and economic structure. Consequently, both the absolute level and rates of growth of their imports differed greatly. In 1973, the developed market economies' exports to Iran amounted to $2,941 million, making it already a market of considerable importance, as were the markets of Venezuela ($2,139 million), Algeria ($1,926 million), Indonesia ($1,860 million), Libya ($1,476 million), Saudi Arabia ($1,383 million), and Nigeria ($1,334 million). By contrast, exports to Iraq, Kuwait and the United Arab Emirates were well below half the value of those to Nigeria, while exports both to Oman and to Qatar were little more than $100 million.

All twelve countries' imports reflected the over-all pattern of an extremely rapid expansion in 1974 and 1975, followed by sharply lower growth (and in some cases actual declines) during the subsequent three years. For the five-year period the growth rates varied from 131 per cent for Indonesia to 1,071 per cent for Saudi Arabia (see table 5.4). The fact that Saudi Arabia's imports grew at a rate substantially above that of any other oil-exporting country, though this country had been expected at the time of the oil price rise to be one of the "low absorbers", while Indonesia, forecast to be a "high absorber", had the lowest growth rate, is indicative of the total unpredictability of events in these countries in the 1970s.

Other countries with relatively high import growth rates between 1973 and 1978 were Iraq (but almost entirely in the first two years, when growth was 673 per cent), Qatar, United Arab Emirates (both also expected to be "low absorbers") and Nigeria.[85] In addition to Indonesia, relatively low rates were recorded by Libya, Algeria and Venezuela. Iran, Kuwait and Oman were somewhat above the average for the twelve countries. These widely divergent growth rates resulted in some major shifts in the relative importance of several countries as export markets, the most striking of which was the greatly increased weight of Saudi Arabia. The Middle East countries increased their combined share from 41 per cent in 1973 to 58 per cent in 1978.

Table 5.4

Total developed market economies' exports to each oil-exporting country

Market	*Values ($ million) 1973*	*Percentage change from previous year* 1974	1975	1976	1977	1978	*Percentage change 1973-1978*
Algeria	1 926	67	50	−12	37	11	236
Indonesia	1 860	52	32	7	−1	9	130
Iran	2 941	80	94	−3	12	35	413
Iraq	510	280	104	−5	0	17	763
Kuwait	610	81	48	51	25	11	465
Libya	1 476	81	27	5	14	18	224
Nigeria	1 334	57	117	22	42	10	546
Oman	107	176	92	−15	31	−2	480
Qatar	126	61	117	62	24	4	629
Saudi Arabia	1 383	88	85	80	33	40	1 071
United Arab Emirates	545	99	69	38	31	13	590
Venezuela	2 139	55	27	23	36	8	253
Total	14 955	78	66	16	23	21	409

Sources: As for table 5.2.

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[84] Corresponding shares of manufactured exports (SITC 5-8) do not vary much from those for total exports except for Denmark, Ireland and Turkey, for all three of which manufactures accounted for much lower shares. The direction of change in market shares is also similar between 1973 and 1977 with the exception of the United Kingdom (where the share of manufactures decreased in contrast to that of total exports).

[85] The "high absorption" countries were expected to be Algeria, Indonesia, Iran, Iraq, Nigeria and Venezuela, largely on the basis of relatively high population levels. See, for instance, OECD, *Economic Outlook*, No. 14, December 1973, p. 54.

Destination of exports to the oil-exporting countries
(Percentage distribution)

	1973	*1978*
Algeria	12.9	8.5
Indonesia	12.4	5.6
Iran	19.7	19.8
Iraq	3.4	5.8
Kuwait	4.1	4.5
Libya	9.9	6.3
Nigeria	8.9	11.3
Oman	0.7	0.8
Qatar	0.8	1.2
Saudi Arabia	9.2	21.3
United Arab Emirates	3.6	4.9
Venezuela	14.3	9.9
Total	100.0	100.0

Source: As for table 5.2.

Given the extremely large variations in market growth rates, the initial distribution of exports was of considerable significance. This distribution is shown in table 5.5, which brings out the importance of past historical relationships and other special factors in the network of international trade. This is most apparent in the high proportion of the total exports to Algeria held by France, Libya (Italy), Nigeria, Oman and Qatar (the United Kingdom for all three), Venezuela (United States) and Indonesia (Japan). In 1973, the shares of Venezuelan exports held by the United States, and of Indonesian exports held by Japan, amounted to almost half of the total market in each case.[86] The notable exception among the larger west European economies was the Federal Republic of Germany: its exports were comparatively evenly distributed among the oil-exporting countries and, although it held almost a quarter of total exports to Iran, it did not dominate any single market to the same extent as the other larger exporting countries.

Two broad, and conflicting, influences are likely to have affected these special trading relationships during the upsurge of import demand in the mid-1970s. The first was the advantages afforded to the dominant supplier by existing strong and well-established commercial and financial ties; and the second, the efforts of new suppliers to increase their shares of these fast-growing markets. One might have expected the first influence to predominate initially but to diminish relative to the second quite rapidly. The text table below indicates that this appears to have happened to some extent, apart from the United Kingdom's position in Nigeria, Oman and Qatar, its share of total exports falling sharply in 1974 in each case, though its share of the Oman market subsequently rose markedly in 1977.[87]

In addition to these major bilateral trade links, the larger economies' links with some of the other oil-exporting countries also underwent substantial changes in this period. Of these, the most notable were with Iraq: the Federal Republic of Germany and Japan increased their shares of this market extremely rapidly (from 8.4 per cent and 9.6 per cent, respectively, in 1973 to 20.8 per cent and 27.3 per cent in 1978), while the shares of France, the United Kingdom and the United States declined steeply.

Obviously none of the smaller economies dominated any of the export markets to the same extent, but the distribution of their exports tended to be highly uneven. Iraq was initially a particularly important market for many of the smaller economies (Austria, Denmark, Sweden and all five of the south European countries [88]), none of the larger economies having especially strong economic links with this country. Libya accounted for a relatively big share of the south European countries' exports, especially those of Greece, Turkey and Yugoslavia. Other notably high shares in 1973 were those of Ireland and Norway in Nigeria, Portugal in Venezuela, Spain in Algeria, Turkey in Kuwait, and Yugoslavia in Qatar.

Major bilateral trade links
(Exporting country's percentage share of total market [a])

Exporting country	*Market*	*1973*	*1974*	*1975*	*1976*	*1977*	*1978*
France	Algeria	39.1	39.9	39.4	35.0	30.9	23.7
Italy	Libya	30.7	32.0	30.4	28.1	29.0	27.4
United Kingdom	Nigeria	30.7	24.6	24.9	25.1	23.7	25.2
	Oman	44.8	30.3	38.2	38.1	47.9	38.9
	Qatar	35.7	25.2	28.1	21.9	23.2	19.2
United States	Venezuela	47.7	52.5	52.6	50.5	44.6	48.9
Japan	Indonesia	48.4	51.5	49.8	41.1	45.6	48.8

Source: As for table 5.2.

[a] The total market refers to total exports of the twenty developed market economies to the indicated country.

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[86] The "total market" here and elsewhere refers to the exports of the twenty developed market economies covered.

[87] The same was broadly true of the Federal Republic of Germany's position in Iran: a considerable decline in 1974 followed by a strong recovery in 1976 and 1977.

[88] Spain's remarkably high share of Iraq's exports in 1973 (11.49 per cent) was due to an exceptional share (24 per cent) of exports of machinery and transport equipment that year.

TABLE 5.5

Shares of each oil-exporting country's market in 1973 [a]

(*Percentages*)

Exporting country	*Market* *Algeria*	*Indonesia*	*Iran*	*Iraq*	*Kuwait*	*Libya*	*Nigeria*	*Oman*	*Qatar*	*Saudi Arabia*	*United Arab Emirates*	*Venezuela*	*Total oil-exporting countries*
Austria	0.58	0.28	1.15	2.19	0.58	1.27	1.31	0.20	0.80	0.51	0.45	0.36	0.80
Belgium-Luxembourg	5.65	1.17	2.98	4.69	2.88	2.80	2.92	5.60	2.45	3.21	2.02	2.91	3.12
Denmark	0.79	0.28	0.61	1.52	1.70	0.46	0.97	0.88	1.86	0.83	1.02	0.85	0.76
Finland	0.31	0.19	0.78	0.23	0.10	0.53	0.28	0.06	0.04	0.19	0.01	0.17	0.35
France	39.10	2.84	6.92	16.53	6.57	13.56	8.11	7.86	6.43	3.93	6.04	4.85	11.03
Germany, Federal Republic of	16.20	10.57	24.47	8.40	11.53	14.25	15.63	7.29	8.05	9.11	5.13	13.51	14.85
Ireland	0.01	0.05	0.07	0.05	0.12	0.11	0.34	0.22	0.03	0.07	0.05	0.19	0.11
Italy	9.22	1.36	6.03	6.19	6.43	30.71	4.73	4.70	3.54	5.63	2.84	6.09	8.03
Netherlands	3.55	5.07	2.89	3.43	3.99	3.07	6.99	6.02	5.17	4.32	2.84	2.37	3.79
Norway	0.09	0.21	0.34	0.28	0.12	0.32	1.05	0.05	0.11	0.09	0.11	0.34	0.31
Sweden	1.47	0.56	1.61	4.87	1.21	0.82	1.20	0.84	0.50	1.77	0.79	1.71	1.42
Switzerland	1.64	1.02	3.48	2.40	2.66	1.68	2.05	1.23	2.13	2.20	5.75	2.51	2.36
United Kingdom	4.74	4.29	11.02	12.83	12.65	8.79	30.66	44.78	35.68	10.22	20.87	4.38	10.82
Western Europe	83.35	27.89	62.35	63.61	50.54	78.37	76.24	79.73	66.79	42.08	47.92	40.24	57.75
Greece	0.23	0.01	0.31	0.67	0.57	1.41	0.14	0.19	0.06	0.27	—	0.01	0.32
Portugal	—	0.02	0.03	0.40	—	—	0.04	0.02	—	0.01	—	0.31	0.07
Spain	5.35	0.06	0.96	11.49	1.07	3.31	0.75	—	0.10	0.37	0.30	2.65	2.14
Turkey	0.02	—	0.41	1.98	0.85	0.62	0.12	—	—	0.11	—	—	0.27
Yugoslavia	0.09	0.20	0.58	1.32	0.42	1.83	0.09	0.02	2.01	0.35	—	0.04	0.46
Southern Europe	5.69	0.29	2.29	15.86	2.91	7.17	1.14	0.23	2.17	1.11	0.30	3.01	3.26
United States	8.32	23.40	18.92	10.95	19.24	7.01	12.03	8.32	15.32	28.80	22.13	47.67	21.10
Japan	2.64	48.43	16.47	9.57	27.29	7.45	10.60	11.74	15.71	28.02	29.64	9.08	17.91
Total	100	100	100	100	100	100	100	100	100	100	100	100	100

Source: As for table 5.2.

[a] Percentage of total developed market economies' exports to indicated country.

The smaller exporting countries' shares of individual oil-exporting countries' markets tended to fluctuate considerably and no general pattern emerges from these changes. But comparing 1977 with 1973, four countries show widespread increases in their market shares: Ireland raised its share of total exports in every market except Oman and Venezuela; Greece's share rose in all markets apart from Iran; Spain improved its share in every market except Algeria, Iraq and Oman; and Yugoslavia increased its share in all markets apart from Iran, Qatar and Saudi Arabia. By contrast, the Netherlands' share of total exports fell in every market except Indonesia and the United Arab Emirates. These developments, however, were also influenced by differing commodity patterns of exports, which are examined below.

Commodity structure of exports to the oil-exporting countries
(*Percentage distribution*)

	1973	*1978*
Food and live animals (0) [a]	8.5	6.3
Beverages and tobacco (1)	0.8	1.0
Crude materials (2)	2.2	1.2
Mineral fuels (3)	0.9	1.1
Animal and vegetable oils (4)	0.8	0.6
Chemicals (5)	9.0	6.3
Semi-manufactures (6)	24.4	22.2
Machinery and transport equipment (7)	46.3	52.2
Miscellaneous manufactures (8)	6.0	7.5
Commodities not classified elsewhere (9)	1.0	1.5
TOTAL	100.0	100.0

Source: As for table 5.2.

[a] SITC numbers in parentheses.

(iii) The commodity pattern of exports

Almost 90 per cent of the developed market economies' exports to the oil-exporting countries consist of manufactured goods. These increased from $12.8 billion in 1973 to $65.7 billion in 1978, exports of machinery and transport equipment alone rising from under $7 billion in 1973 to almost $39 billion four years later, the most remarkable expansion of international trade in recent years.

But although exports were dominated by manufactures, total non-manufactures also increased rapidly, from just under $2 billion in 1973 to over $6 billion in 1977.[89] This market was an important source of export growth for some of the developed market economies and several recorded higher growth rates, in terms of values, for non-manufactures than for manufactures: Belgium, Denmark, Finland, Ireland, Greece, Turkey and, more surprisingly, the Federal Republic of Germany. Much the largest commodity group was food and live animals, exports of which amounted to $4.7 billion in 1978. However, the fastest growth rates were for the group beverages and tobacco, the growth rates being well above that for total manufactures (see table 5.6).

There were very large variations in growth rates both among manufactures and non-manufactures, as well as sharp annual fluctuations: exports of animal and vegetable oils, for instance, increased in value by 157 per cent in 1974 but fell by 4 per cent in the following year. Consequently some big shifts in the over-all commodity structure of trade took place in this period, the most important being the greatly increased weight of machinery and transport equipment in the total.

Exports to the oil-exporting countries of every commodity division (SITC 2-digit level) increased in value between 1973 and 1977,[90] but the dispersion in growth rates was once again extremely large. In the food and live animal section, the fastest rates of expansion were for meat (631 per cent between 1973 and 1977), followed by fish and then animal feeding-stuff. But cereals, with the United States as the major supplier, remained the biggest group in absolute terms, exports amounting to $1,359 million in 1977. Exports of petroleum products, mainly from Italy, rose 408 per cent to $564 million.

The comparatively slow growth of crude materials (SITC 2) and of animal and vegetable oils and fats (SITC 4) was reflected among all the groups in these two sections, apart from wood, lumber and cork. Chemicals also tended to increase relatively slowly, especially manufactured fertilizers, in which the oil-exporting countries are presumably becoming increasingly self-sufficient. The fastest growth was in explosives and pyrotechnic products, followed by perfume materials, etc. (SITC 55).

Amongst manufactured goods, classified chiefly by material, hereafter referred to as semi-manufactures (SITC 6), much the most rapid expansion was for wood and cork manufactures, excluding furniture, which rose almost thirteenfold to $428 million in 1977. The two miscellaneous groups (non-metallic mineral manufactures, not elsewhere specified, and manufactures of metal not elsewhere specified) increased exceptionally fast, to $1,450 million and $3,865 million, respectively. Exports of iron and steel rose at the comparatively low rate of 165 per cent, but this still amounted to an increase of $2,404 million.

Although the growth rate for textile yarn and fabrics was also relatively low, at 141 per cent, this represented an increase of over $1 billion in the developed market economies' exports. Japan remained the largest single supplier but its share of the market declined from 46 per cent in 1973 to 37 per cent in 1977. The United States, United Kingdom, Belgium and Switzerland all increased their market shares in this period.

Most miscellaneous manufactured articles (SITC 8) —broadly consumer goods—expanded extremely rapidly. Furniture increased more than ninefold, reflecting in large part the construction boom; and travel goods, clothing, footwear, sanitary, plumbing, heating and lighting fixtures, all increased at least fivefold.

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[89] Deflating by the unit value indices (1970 = 100) of developed areas' exports to developing areas gives the following rates of volume increase between 1973 and 1977: food, etc. (SITC 0 + 1) 163 per cent; raw materials (2 + 4) 54 per cent; chemicals (5) 91 per cent; machinery (7) 211 per cent; other manufactures (6 + 8) 161 per cent; and total exports (0—9) 177 per cent. For the unit value indices see United Nations, *Monthly Bulletin of Statistics*, June 1979, special table F. It must be emphasized that, for a number of reasons, the above figures are extremely rough and are presented simply to indicate possible orders of magnitude.

[90] Commodity trade data for the US in 1978 are still provisional.

TABLE 5.6

Commodity composition of developed market economies' exports to oil-exporting countries, 1973-1978

Commodity group [a]	*Values ($ million)*						*Percentage increase from previous year*					
	1973	*1974*	*1975*	*1976*	*1977*	*1978*	*1974*	*1975*	*1976*	*1977*	*1978*	*1973-1978*
Food and live animals (0)	1 277	2 166	2 691	2 759	3 727	4 709	70	24	3	35	26	269
Beverages and tobacco (1)	125	198	350	438	699	762	58	77	25	60	9	510
Crude materials (2)	323	639	686	661	766	894	98	7	−4	16	17	177
Mineral fuels (3)	132	360	476	514	611	846	173	32	8	19	38	541
Animal and vegetable oils (4)	114	293	281	216	290	468	157	−4	−23	34	61	309
Chemicals (5)	1 348	2 423	3 116	3 042	3 788	4 668	80	29	−2	25	23	246
Manufactured goods classified mainly by material (6)	3 653	7 428	10 956	10 811	13 350	16 552	103	47	−1	23	24	353
Machinery and transport equipment (7)	6 930	11 402	22 630	28 538	34 260	38 893	65	98	26	20	14	461
Miscellaneous manufactures (8)	899	1 420	2 301	3 265	4 487	5 583	58	62	42	37	24	521
Commodities not classified elsewhere (9)	155	297	707	859	1 097	1 088	92	138	21	28	−1	601
Total	14 955	26 626	44 195	51 104	63 075	76 165 [b]	78	66	16	23	21	409

Source: As for table 5.2.

[a] SITC section numbers in brackets.

[b] The total does not correspond to the sum of the commodity group 0-9 as the trade data for the United States in 1978 do not give the commodity classification of all exports to the oil-exporting countries.

TABLE 5.7

Commodity structure of exports to oil-exporting countries, 1973 and 1978

(Percentages)

Exporting Country	*SITC*[a] *0*	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*Tota*
						1973					
Austria	1.9	—	15.3	0.6	—	9.5	39.5	28.3	4.9	—	100
Belgium-Luxembourg	6.3	—	1.0	0.9	0.1	8.2	48.1	26.3	3.5	5.8	100
Denmark	31.9	3.6	0.7	0.1	0.1	9.9	6.6	41.0	4.6	1.6	100
Finland	5.5	—	17.3	—	0.1	3.6	67.9	4.1	1.4	—	100
France	11.2	0.8	1.0	0.3	0.5	11.0	21.4	47.4	6.1	0.3	100
Germany, Fed. Rep. of	2.2	—	0.9	0.5	0.4	11.8	18.5	59.9	5.2	0.7	100
Ireland	46.3	8.9	3.5	0.1	—	15.6	8.1	9.9	7.4	—	100
Italy	3.2	0.2	1.3	3.9	0.3	5.6	31.1	44.0	9.2	1.2	100
Netherlands	29.4	0.4	2.2	1.2	1.9	17.1	12.0	31.7	3.9	0.2	100
Norway	12.3	2.4	6.9	3.2	0.8	5.2	41.8	24.6	2.7	—	100
Sweden	1.5	—	9.3	—	1.2	6.6	19.4	60.2	1.9	—	100
Switzerland	2.5	—	0.1	—	—	23.4	10.0	28.4	27.3	8.2	100
United Kingdom	3.7	3.2	0.9	1.4	0.1	11.5	17.5	54.5	7.0	0.1	100
Greece	14.1	0.1	5.2	4.2	0.3	6.7	52.1	12.2	5.0	—	100
Portugal	4.3	4.8	21.9	—	4.8	6.3	31.9	21.3	4.7	0.1	100
Spain	7.1	1.0	1.3	0.7	9.3	4.4	33.2	32.5	10.3	0.1	100
Turkey	52.0	—	4.3	0.1	1.1	2.4	31.9	6.5	1.7	—	100
Yugoslavia	0.4	—	16.9	—	—	3.1	43.9	28.2	7.5	—	100
Total western Europe	7.1	0.9	1.7	1.2	0.7	10.7	22.8	46.9	7.0	1.0	100
United States	18.0	1.2	3.8	0.6	1.5	7.2	10.6	51.4	4.2	1.5	100
Japan	2.4	0.2	1.7	0.3	—	5.3	46.4	38.3	4.8	0.5	100
TOTAL above	8.5	0.8	2.2	0.9	0.8	9.0	24.4	46.3	6.0	1.0	100
						1978					
Austria	6.1	1.4	4.7	0.2	—	7.0	35.5	36.1	6.1	2.9	100
Belgium-Luxembourg	5.1	0.1	0.9	2.9	0.4	7.7	38.0	28.0	3.4	13.5	100
Denmark	37.6	1.2	0.5	0.1	0.5	6.1	11.1	37.2	5.5	0.3	100
Finland	1.6	0.1	25.5	1.9	0.1	5.0	37.7	24.7	3.1	0.3	100
France	8.8	0.8	0.4	1.1	0.6	6.6	20.8	54.5	6.2	0.2	100
Germany, Fed. Rep. of	2.6	0.3	0.5	0.4	0.4	6.4	18.0	65.0	4.8	1.7	100
Ireland	53.0	5.7	1.4	0.3	—	11.0	8.6	15.2	4.8	—	100
Italy	3.3	0.3	0.8	4.0	0.1	5.2	28.9	40.1	16.4	0.8	100
Netherlands	18.1	0.9	1.2	4.7	2.3	10.7	15.6	39.9	5.7	1.0	100
Norway	12.9	0.2	3.4	—	0.4	9.5	25.7	45.5	2.3	—	100
Sweden	1.0	—	5.1	0.1	1.0	3.2	18.1	67.1	3.1	1.2	100
Switzerland	2.9	1.2	0.2	0.1	—	13.8	14.9	38.7	28.1	0.1	100
United Kingdom	3.9	2.6	0.5	1.0	0.1	10.1	17.8	50.7	10.0	3.4	100
Greece	19.7	0.4	1.7	5.7	0.4	7.8	50.7	7.6	5.3	0.6	100
Portugal	9.9	7.2	5.3	—	3.0	7.4	38.9	16.4	11.4	0.5	100
Spain	8.4	0.9	1.1	1.9	3.2	4.5	49.5	21.8	8.4	0.3	100
Turkey	55.3	—	1.8	—	4.0	1.4	29.6	6.0	1.8	—	100
Yugoslavia	1.7	1.4	4.3	0.1	—	13.3	27.1	40.1	12.0	—	100
Total western Europe	6.1	0.9	1.0	1.6	0.5	7.5	22.5	49.2	8.7	2.0	100
United States	12.5	1.8	2.2	0.6	1.6	5.5	11.2	58.6	5.0	1.0	100
Japan	0.9	0.6	0.7	0.2	—	3.0	32.4	55.9	5.9	0.3	100
TOTAL above	6.3	1.0	1.2	1.1	0.6	6.3	22.2	52.2	7.5	1.5	100

Source: As for table 5.2.

[a] For descriptions, see table 5.6.

As often occurs in international trade data, the fastest growth was in a miscellaneous category, in this case "commodities and transactions not classified according to kind" (SITC 9), exports increasing more than sevenfold to $1 billion.[91] The two major groups were "special transactions, not classified according to kind", which amounted to $486 billion in 1977 and "firearms of war and ammunition therefor" ($204 million).

In absolute terms, much the biggest section was machinery and transport equipment. Exports of electrical machinery increased by $6.5 billion (458 per cent) between 1973 and 1977, an appreciably higher rate than for exports of non-electrical machinery (352 per cent), though in absolute terms the growth of the latter group was substantially larger ($11.3 billion). Transport equipment rose fivefold to $11.6 billion. Together these three groups accounted for 57 per cent of the entire growth in the developed market economies' exports to the oil-exporting countries in the four years to 1977.

For most countries, the commodity pattern of exports to the oil-exporting countries was reasonably similar to that for total exports, though manufactures generally accounted for a higher proportion of the former than of the latter. This applied in particular to machinery and transport equipment (SITC 7) for the larger west European economies and the south European countries in 1973: in view of the relatively fast growth of demand for these goods, this was a factor of considerable importance. The most notable divergencies in 1973 between a country's exports to the oil exporting countries and its total exports were: Turkey's exports of food and live animals (accounting for 52 per cent of exports to the oil-exporting countries as against 34 per cent of total exports), and Greece's and Finland's exports of semi-manufactures (68 per cent and 45 per cent respectively, for Finland, and 52 per cent and 27 per cent for Greece).

Comparing the initial commodity structure of each country's exports to the oil-exporting countries with the average structure for all developed market economies (table 5.7), Denmark, Ireland, the Netherlands, Turkey and the United States had relatively heavy concentrations in food and live animals. Austria, Finland, Portugal and Yugoslavia had comparatively large shares of crude materials, and Spain a big share of animal and vegetable oils and fats. All three of these commodity groups increased relatively slowly, so that the commodity structures for these countries tended to be unfavourable to growth. For Denmark, Ireland and Portugal, however, this influence should have been at least partly offset by the above-average shares of the fast-growing section, beverages and tobacco.

The impact of the comparatively slow expansion for chemicals is likely to have had an adverse influence on Switzerland's export growth (with 23 per cent of its exports in this category). However, 27 per cent of its exports were in the fast-growing section, miscellaneous manufactured goods (due mainly to watches) which should have had some offsetting effect. The importance of semi-manufactures—demand for which grew at somewhat below the average rate—varied greatly, from 6.6 per cent for Denmark to 67.9 per cent for Greece, with an average figure of 24.4 per cent.

In terms of market growth, the larger economies should have derived considerable benefit from the relatively large weight of machinery and transport equipment in their exports, demand growing particularly fast for these products. This applied, in particular, to the Federal Republic of Germany and Sweden (both having 60 per cent of total exports to the oil-exporting countries in this group). The pattern of import commodity growth, however, differed greatly among the twelve oil-exporting countries (see table 5.8); for example, between 1973 and 1978, Iraq's imports of machinery and transport equipment rose by 1050 per cent while Libya's increased by only 256 per cent. The rate of growth of exporting countries' markets therefore depended on the combination of the geographical and commodity distribution of exports. This is analysed in the next section.

(iv) Relative export performance

An attempt has been made to compare the relative export performances of the developed market economies in the market of the oil-exporting countries. The method employed is to calculate for each country the rate of growth that would have occurred if its exports of each SITC section to every oil-exporting country had increased (or fallen) at the same rate as that of total developed market economies' exports to that market, all calculations being in terms of current dollars. The difference between this estimated growth rate and the actual growth rate for that country's exports provides a rough measure of export competitiveness. However, it should be noted that this refers only to competitiveness relative to other developed market economies and not relative to all exporters. Needless to say, the results of such an exercise will also vary according to the degree of commodity disaggregation.

The figures are shown in table 5.9 for the years 1974-1978. The left-hand panel indicates some significant inter-country divergencies in market growth rates, especially in 1974 and 1976. For instance, in 1974, Turkey's market in the oil-exporting countries increased by as much as 149 per cent (one quarter of its exports in 1973 were to Iraq, where the market expanded by 280 per cent in 1974), while the corresponding figure for Switzerland was 66 per cent. In 1976, the oil-exporting countries market actually declined for some countries (Finland, Portugal and Turkey), though for the developed market economies as a group it rose by 16 per cent. This factor, however, appears to have played a much smaller role in explaining differences in export growth rates between 1975 and 1978.

Although the influence of the geographical and commodity distribution of exports tended for most countries to be roughly offsetting over the five-year period—a favourable distribution in some years being more or less balanced by an unfavourable pattern in other years—the cumulative effect was significant for a few countries, most notably for the United Kingdom and Sweden. The initial distribution of United Kingdom exports, with large shares of the fast growing markets of Nigeria, Oman, Qatar and the United Arab Emirates, as well as the

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[91] Annual fluctuations in these exports from certain countries were especially erratic, and developments here probably reflect, *inter alia*, different—and possibly changing—national conventions in recording certain trade flows. This could affect to some extent the analysis of relative export performances and of "revealed" comparative advantage but, in view of the size and growth of this section, it seemed preferable not to exclude these data.

TABLE 5.8

Exports to each oil-exporting country by main commodity groups

(*Percentages increases in dollar value, 1973-1979*)

Commodity group	*Market*												
	Algeria	*Indonesia*	*Iran*	*Iraq*	*Kuwait*	*Libya*	*Nigeria*	*Oman*	*Qatar*	*Saudi Arabia*	*United Arab Emirates*	*Venezuela*	*Total oil-exporting countries*
Food and live animals (0)	195	28	408	341	136	157	643	455	355	482	443	156	269
Beverages and tobacco (1)	379	292	2 195	4 661	136	24	512	511	314	716	354	396	510
Crude materials (2)	134	147	214	180	1 100	18	255	166	975	986	371	97	177
Mineral fuels (3)	568	407	305	137	182	235	2 453	469	536	896	814	41	541
Animal and vegetable oils (4)	284	384	437	990	80	−38	4 566	728	442	405	497	165	309
Chemicals (5)	88	119	261	365	276	193	402	324	379	647	646	184	246
Manufactured goods classified chiefly by material (6)	243	73	327	656	415	160	412	294	878	976	440	248	353
Machinery and transport equipment (7)	268	178	414	1 050	548	256	584	634	585	1 179	718	308	461
Miscellaneous manufactures (8)	170	216	440	1 235	447	382	614	418	651	1 492	617	218	521
Commodities not classified elsewhere (9)	394	171	300	1 738	1 999	1 077	601	262	524	2 278	609	156	601
Total	236	130	413	763	465	224	546	480	629	1 071	590	253	409

Sources: As for table 5.2.

TABLE 5.9

Export market growth and relative export performance in markets of oil-exporting countries

(*Percentage changes from previous year*)

Exporting country	*Growth of export markets* [a]					*Relative export performance* [b]				
	1974	*1975*	*1976*	*1977*	*1978*	*1974*	*1975*	*1976*	*1977*	*1978*
Austria	92	68	8	26	19	0	−8	49	−29	−13
Belgium-Luxembourg	96	61	12	29	13	−48	4	3	12	5
Denmark	72	85	19	25	17	−7	1	−13	0	5
Finland	89	51	−8	23	20	30	−32	47	32	−6
France	79	63	5	26	16	−8	0	−3	−7	−4
Germany, Federal Republic of	69	82	14	20	17	10	−13	7	9	−3
Ireland	74	67	10	37	9	12	80	46	10	6
Italy	84	56	13	23	21	2	11	1	13	1
Netherlands	78	57	16	24	20	−30	4	10	−6	1
Norway	83	72	23	22	12	−49	50	10	4	−28
Sweden	95	88	18	19	16	−27	18	21	−24	0
Switzerland	66	74	23	27	22	−16	−15	11	7	3
United Kingdom	80	89	21	28	17	−30	6	−9	5	7
Greece	107	43	0	25	23	150	26	25	−13	−1
Portugal	111	37	−2	36	17	−58	86	−11	−20	−23
Spain	104	44	7	28	18	−53	23	−5	17	20
Turkey	149	39	−4	24	24	−64	38	−1	−4	12
Yugoslavia	107	58	1	17	22	14	5	38	−1	10
United States	71	58	21	25	19	15	4	−2	−17	−4
Japan	80	61	17	19	18	20	−7	−6	9	1
Total	78	66	16	23	18					

Sources: As for table 5.2.

[a] Market growth is based on growth of the developed market economies' exports to each of the twelve oil-exporting countries, disaggregated to the SITC section (one-digit) level.

[b] Growth rate of a country's exports minus growth rate of its markets.

commodity structure, with relatively high proportions of beverages and tobacco and of finished manufactures (see table 5.7), resulted in a highly favourable export pattern and an above average market growth in every year shown.

Sweden's advantageous geographical and commodity specialization derived largely from its exceptionally high share of exports of machinery and transport equipment to Iraq—8.9 per cent in 1973, compared with its share of 1.4 per cent of the total exports to the oil-exporting countries—one of the fastest growing markets (increasing over tenfold between 1973 and 1977). Other countries with favourable export patterns, as reflected in the growth of their export markets, were Austria (except in 1976), Denmark (especially in 1975) and Norway. The initial distribution of Switzerland's exports was notably unfavourable, but was advantageous from 1975 onwards.

For the remaining west European countries, the annual fluctuations in the rates of market growth relative to the average were, very broadly, offsetting. This also applied to the United States and Japan. Given Japan's initial heavy dependence on the comparatively slow-growing Indonesian market (see table 5.5), this is somewhat surprising; but this influence seems to have been offset by the effect of Japan's relatively large share of the markets in Kuwait, United Arab Emirates and, in particular, Saudi Arabia.

The influence of the geographical and commodity composition on export growth was most apparent for the south European countries. In 1974 all five countries benefited very greatly from the geographical distribution of their exports to the oil-exporting countries: as with Sweden, this was mainly attributable to their comparatively heavy dependence on Iraq as a market (total exports increasing by 280 per cent that year). But although Iraq continued to grow relatively fast in 1975 (104 per cent), this did not compensate for the effect of below average growth in their other principal export markets—principally Libya, but also Venezuela for Portugal—and the distribution became unfavourable. In addition, the commodity structure was also adverse in 1975, and again in 1976, food and live animals and crude materials showing little growth, and animal and vegetable oils actually falling. Hence the south European countries' exports markets grew appreciably more slowly than did those of western Europe, the United States and Japan in 1975 and 1976 (and even fell for Portugal and Turkey in the latter year). This situation was again reversed in 1977, however, as demand from the oil-exporting countries for non-manufactures picked up sharply.

Turning to the relative export performance figures in table 5.9, the most striking fact is the remarkably big annual fluctuations for many countries. Clearly "competitiveness" in international trade, as normally understood, is unlikely to have oscillated to the extent suggested by some of these figures. A more disaggregated commodity analysis might well have reduced the size of some of the annual swings, but it also seems probable that, because of the explosive but disparate growth of import demand in the oil-exporting countries in the mid-1970s, relative export performances in this market were influenced to an exceptional degree by special factors. In particular, a high proportion of exports was associated with Government contracts—often very large and usually for construction or defence projects—and one such contract could have a significant impact on the over-all size and commodity composition of a country's exports. Furthermore, international competitiveness is likely to play a somewhat smaller role in Government to Government deals than in normal commercial transactions. Hence the figures shown in table 5.9 can only be taken as a very approximate indication of relative competitiveness in this important market.

Nevertheless, the figures do indicate distinct developments in this period for certain countries. The most notable were the strong export performances of Ireland, Italy, Greece and Yugoslavia, all of which recorded growth rates well above the rates of expansion of their respective markets in each year from 1974 to 1978 (apart from the latter two countries in 1977), implying strong competitive positions.

The composition both of Italy's and of Ireland's exports to the oil-exporting countries were broadly "neutral", being neither particularly favourable nor unfavourable to export growth: the rises in their market shares—very marked for Ireland (see table 5.3)—were therefore attributable to their relative export performances. Both countries achieved substantial gains in manufactures and in the sector "food and live animals". Ireland, in fact, increased its share of all nine SITC commodity sections, though from very low initial levels. (Its share of total exports in 1977 still amounted to only 0.26 per cent, after doubling over the previous four years.[92]) Italy's gain was comparatively modest—by one percentage point to 9.1 per cent in 1978—but accords with the general estimates of its over-all competitive position in international trade in this period.[93]

Greece and Yugoslavia increased their shares of total exports to the oil-exporting countries sharply, though, like Ireland, from low base levels (0.32 per cent and 0.46 per cent, respectively, of the total market in 1973). As outlined above, the initial distribution had a major influence on the south European countries' exports, being highly favourable to growth in 1974 but unfavourable in the two following years. According to the figures presented in table 5.9, however, the doubling of Greece's market share in 1974 owed much more to the strong relative export performance than to the distribution of exports, while the further gains in market shares in 1975 and 1976 were due entirely to competitiveness, which more than offset the influence of the unfavourable distribution of exports. Greece made impressive gains in semi-manufactures, especially non-metal minerals, and in the section "food and live animals", exports of fruit and vegetables rising from 4.6 per cent of the total market in 1973 to 12.8 per cent in 1977.

For Yugoslavia, the gains in market shares attributable to relative export performance were smaller than for Greece in the immediate aftermath of the oil price rise, but were appreciably bigger in 1976 and 1978. Its market share increased strongly in chemicals (fertilizers and explosives and pyrotechnic products[94]) and in finished manufactures (especially for ships, but also for clothing and furniture).

In addition to the above four countries, for which the large and consistent gains in market shares indicate strong competitive positions, Finland and the Federal Republic of Germany had favourable relative export performances—as measured in table 5.9—in three years but losses in the other two years (1975). Thus, while the figures suggest strong competitive exports for Finland and the Federal Republic of Germany, the position is not as unambiguous as for the first four countries. The distribution of the Federal Republic's exports was favourable to growth in 1975, offsetting the competitive loss; consequently its share of total exports to the oil-exporting countries increased by 2 percentage points between 1973 and 1977. (But this was followed by a sharp fall in 1978.) For Finland, however, the distribution of exports was adverse in 1975; combined with the marked loss of competitiveness, this resulted in a pronounced fall in Finland's share of the total market that year, though the strong relative export performance in the two subsequent years lifted the share to well above the 1973 level (see table 5.3).[95]

A notable feature of the Federal Republic of Germany's exports to the oil-exporting countries was the rise in its share of the market for "beverages and tobacco", from 0.8 per cent in 1973 to 11.7 per cent in 1977.[96] Some increase in the share of exports of machinery and transport equipment also occurred. Finland's share of crude materials (SITC 2) exports rose from 2.8 per cent to 8.7 per cent in this period, mainly as a consequence of the doubling, to 28 per cent, of its share of wood and lumber. Finland, like Yugoslavia, also increased its market share of ships and boats (to $51 million in 1977).

Norway and Belgium show competitive gains between 1975 and 1977, but in both cases the export performance in 1974 was so weak as to offset the later improvement. Norway also suffered a large apparent loss of competitiveness in 1978, though the heavy reliance on exports of ships makes the measures used in table 5.9 of questionable value for this country. Belgium experienced a significant decline in its share of exports of manufactures to the oil-exporting countries, especially of semi-manufactures (exports of iron and steel falling from 9.9 per cent in 1973 to 4.8 per cent in 1977),[97] but some gains in non-manufactures.

In marked contrast to the above countries, the export performances of Denmark, France and Turkey in the oil-exporting countries' market were all relatively weak throughout the 1973 to 1978 period. Portugal might also be included, though its position is less clear.

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[92] This percentage increased further in 1978, suggesting a continuation of the strong export performance. The same applied to Italy and Yugoslavia.

[93] See, for example, the OECD, *Economic Outlook*, December 1978 (table 51) and July 1979 (table 55), which show Italy as the only large industrial country consistently gaining in world markets from 1975 on. The latter table also shows a major improvement for Ireland in 1977 and a further but smaller gain in 1978; figures are not given for this country for earlier years.

[94] Yugoslavia accounted for some two-fifths of the total exports of this product group in 1976.

[95] These exceptionally big fluctuations in Finland's apparent competitive position in the markets of the oil-exporting countries reflect both the large swings in domestic demand and relative price developments, Finland devaluing in 1976.

[96] Almost entirely beverages, and largely to Nigeria, which increased from under $1 million in 1973 to almost $73 million four years later.

[97] This took place very largely in 1975, when its market share fell to 5.1 per cent, despite an increase in value from $144 million to $182 million.

For Denmark, the effect of poor competitiveness on export growth—reflected in most commodity sections—was largely offset by the influence of the favourable export structure (see above), resulting in little change in its over-all market share between 1973 and 1978 (despite big fluctuations within the period). By contrast, France derived no apparent benefit from the geographical and commodity distribution of its exports—if anything the contrary—and its share of the total market declined steadily from 11.0 per cent in 1973 to 8.2 per cent in 1978.[98] Shares of most country and commodity markets fell.

Because of their size and volatility, the figures of relative export performance for Turkey and Portugal are difficult to interpret. Over one-half of Turkey's exports to the oil-exporting countries consisted of food and live animals, for which annual figures fluctuate erratically; but, broadly, Turkey gained shares of exports of fruit and vegetables but lost shares of exports of meat and meat production. Portugal's total exports to the oil-exporting countries amounted to only $34 million in 1978, much the lowest in absolute terms of any of the developed market economies. Apart from Venezuela, none of these countries is of any real importance as an export market for Portugal. Changes in Portugal's export performance in these markets are therefore of limited significance. Nevertheless, the differences between the very strong performances of Greece and Yugoslavia, on the one hand, and the rather weak performances of Portugal and Turkey, is striking (Spain occupied an intermediate position).

The figures in table 5.9 suggest a marked change of trend in export competitiveness between the first two and last three years for Switzerland and the United States, but in opposite directions, Switzerland moving from a weak to strong position and the United States moving in the reverse direction. Again, this was in line with the assessment of these countries' over-all positions in world markets.[99]

The deterioration in the United States' position in 1977 was substantial, its share of total exports to the oil-exporting countries falling by almost 3 percentage points to 19.4 per cent (this, however, was followed by a sizeable gain in 1978), largely as a consequence of a steep fall in its share of exports of machinery and transport equipment. The United States' dominance of exports of food and live animals to this market was weakened in the 1970s: initially its share of this market rose, from 44.5 per cent in 1973 to as much as 53.5 per cent in 1974, but subsequently decreased to 34.9 per cent in 1977. However, this erosion reflected in large part the comparatively slow growth of trade in cereals (where the United States held some three-quarters of total exports).

The relative export performances of the remaining six countries (Austria, the Netherlands, Sweden, United Kingdom, Spain and Japan) do not indicate any clear patterns. In fact, developments tended to be highly volatile, gains alternating with losses. However, figures for certain years stand out: Austria's large gain in 1976, reflected in most commodity groups and in all countries except Algeria and Indonesia; the Netherlands, the United Kingdom, Spain, all experienced substantial losses in 1974, with mixed results in subsequent years; Japan had a considerable gain in 1974 but losses in the two following years; and Sweden shows large losses in 1974 and 1977 but almost equally large gains in the two intervening years. Sweden is one of the few countries for which the figures of relative export performance in table 5.9 differ significantly from those generally shown for exports in world markets.[100]

(v) "Revealed" comparative advantage

The concept of "revealed" comparative advantage is used here to examine the principal changes in the pattern of trade specialization of the 20 developed market economies' exports to the oil-exporting countries. Following the usual practice,[101] indices of revealed comparative advantage have been calculated by dividing a country's share of exports to the oil-exporting countries of a given commodity group by that country's share of total exports to the oil-exporting countries. The higher the index number, the greater the "revealed" advantage for the commodity group in question.

The present exercise examines "revealed" comparative advantage in a specific market—that of the oil-exporting countries—rather than in the world market; and all commodities are included, not just manufactures (SITC 5-8) as in most exercises of this kind. The rationale for this wider coverage is that exports of many non-manufactures (some of which are, in any case, in part manufactured) have increased extremely rapidly, and that the pattern of "revealed" comparative advantage of these commodities compared with manufactures in this particular market is of considerable interest. As the fastest growing section, "Commodities and transactions not classified according to kind" (SITC 9) have also been included, even though this results in some rather bizarre results for certain countries.[102] The years covered are 1973 and 1977 as some of the commodity trade statistics for 1978 are still provisional.

The figures for broad commodity groups (SITC one-digit) are given in table 5.10. For the 13 west European countries as a group, "revealed" comparative advantage in 1973 was greatest in chemicals (SITC 5), followed, in descending order, by miscellaneous manufactured goods (SITC 8, roughly consumer durables), machinery and transport equipment (SITC 7), beverages and tobacco (SITC 1), semi-manufactures (SITC 6), food and live animals (SITC 0), and finally crude materials (SITC 2).[103] In 1977, after five years of immensely rapid growth, the ranking was similar except that beverages and tobacco had moved ahead of machinery and transport equipment, and food and live animals ahead of semi-manufactures. Hence industrial western Europe's revealed comparative advantage in this market had shifted slightly from manufactures to non-manufactures.

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[98] A substantial upturn appears to have taken place in the first half of 1979, however, see OECD, *Economic Outlook*, No. 26, table 54.

[99] The extent to which changes in competitiveness were associated with changes in relative prices is particularly difficult to assess, partly because there is no single generally acceptable measure of prices for this purpose and the various indices used sometimes show conflicting developments. In addition, relative price changes are usually held to have a lagged effect on exports, the lag spreading over a number of years (depending on the product group).

[100] See, for instance, OECD *Economic Outlook*, December 1978 (table 51), which shows Sweden losing market shares in 1975 and 1976. The other countries for which the two sets of figures diverge sharply are France and Japan.

[101] See, for example, "*'Revealed' comparative advantage revisited: an analysis of relative export shares of the industrial countries, 1953-1971*" by Bela Balassa, the Manchester School of Economic and Social Studies, December 1977.

[102] As suggested above, exports recorded under this heading are likely to reflect different national regulations and conventions concerning the recording of trade flows. But in view of the size and increase of this trade for certain countries, it seemed preferable not to exclude this heading.

The ranking of southern Europe in 1973 was more or less the reverse of that for western Europe: comparative advantage was strongest for crude materials, followed by semi-manufactures, miscellaneaous manufactures, food and live animals, beverages and tobacco, machinery and transport equipment and finally chemicals. Another difference with western Europe was that the range of index numbers was far greater for southern Europe,[104] indicating a considerably more pronounced pattern of comparative advantages by broad commodity groups.

By 1977 this ranking had changed significantly: food and live animals moved up from fourth to first position, and chemicals from seventh to fifth place. This improvement for chemicals was particularly striking, the index rising from 0.48 in 1973 to 0.92 in 1977, by which time Greece, Portugal and Yugoslavia all had figures of greater than unity (i.e., their export shares in chemicals were greater than in total exports). The index number had also risen markedly for semi-manufactures, but fell sharply for beverages and tobacco, and machinery and transport equipment.

The United States had a greater comparative advantage in the three non-manufactured groups than in the four manufactured groups, both in 1973 and 1977. The opposite applied to Japan, except that the crude materials group was marginally ahead of miscellaneous manufactures in 1973. The following text table shows the ranking for the four areas in 1973 (with 1977 figures in parentheses).

	Western Europe	*Southern Europe*	*United States*	*Japan*
Food and live animals	6(5)	4(1)	1(1)	6(7)
Beverages and tobacco	4(3)	5(6)	3(3)	7(6)
Crude materials	7(7)	1(2)	2(1)	3(4)
Chemicals	1(1)	7(5)	5(5)	5(5)
Semi-manufactures	5(6)	2(3)	7(7)	1(1)
Machinery and transport equipment	3(4)	6(7)	4(4)	2(2)
Miscellaneous manufactures	2(2)	3(4)	6(6)	4(3)

Source: table 5.10.

A development of considerable potential significance was the shift between 1973 and 1977 in the comparative advantage in machinery and transport equipment from western and southern Europe to the United States and, more particularly, to Japan (although this commodity section did not improve its ranking for the two latter countries, the index number rose in both cases: see table 5.10). There were, however, several exceptions, developments being far from uniform within western or southern Europe. These are examined in the following paragraphs, which summarize the principal findings for each country, based on the data in table 5.10 and similar calculations at the SITC two-digit level (at the three-digit level for machinery and transport equipment). Because of the volume of data, the following comments are inevitably highly selective and concentrate on points of particular interest.

Austria's comparative advantage in exports to the oil-exporting countries was strongest in crude materials, largely because of wood and timber, the index for which in 1973 was as high as 42. By 1977 this had declined steeply and wood and timber was in third place on the comparative advantage scale, behind live animals and, in first place, non-gold coins, a market Austria had come to dominate (with exports of $33 million in 1977). Other commodity groups whose position improved sharply were fruit and vegetables, sugar, and wood and cork manufactures (excluding furniture). Paper and paperboard remained in a high position, as did textile yarns and fabrics, but iron and steel lost ground, falling from third to fourteenth position.

The figures for *Belgium*'s comparative advantage were heavily influenced by that country's large and rapidly increasing unclassified exports (SITC 93, amounting to $310 million in 1977). Between 1973 and 1977 the comparative advantage in semi-manufactures appears to have diminished very considerably—due in large part to iron and steel (falling from second to tenth position), but also to non-metallic minerals and non-ferrous metals—and to have increased for chemicals and for all the non-manufactured groups. Belgium was one of the countries to record a faster growth of non-manufactured than of manufactured exports. Among manufactured goods, the position of footwear and of textile machinery improved notably.

Denmark's comparative advantage in this market was, as would be expected, heavily concentrated on food and live animals, and beverages and tobacco. Furthermore, this concentration was markedly higher in 1977 than in 1973. Meat and dairy products had the two first positions in both years, with beverages in third place.[105]

Initially, Denmark's exports of manufactures to the oil-exporting countries were very small in absolute value, so that the pattern of revealed comparative advantage in 1973 is of limited significance, tending to be unduly influenced by exceptional items. (The highest ranking was in fact for explosives and pyrotechnics, exports of which had dwindled to virtually nothing by 1977.) This point applies in varying degree to all of the smaller economies included here. By 1977, the first ranking among manufactures was for furniture, followed by wood and cork manufactures, in accordance with what might be expected.

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[103] Excluding both the unclassified group (SITC 9) and mineral fuels (SITC 3), both of which, while of some interest for individual countries, are of little relevance in the present comparison of country groupings. Animal and vegetable oils (SITC 4) are also excluded here as exports were small in absolute value and the intention here is simply to identify the broad pattern.

[104] The ratio of the highest to lowest index numbers was 4.4 for southern Europe in 1973 and 4.8 in 1977, compared with 1.7 and 1.5 respectively for western Europe. The corresponding figures for the United States were 4.9 and 3.3, and for Japan 8.3 and 11.3.

[105] Exceptionally rapid expansion of demand for these products in the oil-exporting countries was a major factor in the favourable growth of Denmark's markets, referred to in the previous section.

TABLE 5.10

Revealed comparative advantage: exports to oil-exporting countries [a]

Exporting country	SITC [b] 0		1		2		3		4		5		6		7		8		9	
	1973	*1977*	*1973*	*1977*	*1973*	*1977*	*1973*	*1977*	*1973*	*1977*	*1973*	*1977*	*1973*	*1977*	*1973*	*1977*	*1973*	*1977*	*1973*	*1977*
Austria	0.23	1.18	0.01	0.41	7.06	4.81	0.64	0.20	0.03	—	1.05	0.99	1.61	1.42	0.61	0.73	0.81	0.70	—	3.47
Belgium-Luxembourg	0.73	1.07	—	0.10	0.45	0.65	1.00	1.52	0.07	0.29	0.91	1.14	1.97	1.49	0.57	0.59	0.58	0.57	5.54	9.73
Denmark	3.75	5.57	4.34	5.31	0.30	0.36	0.09	0.07	0.16	0.88	1.11	1.01	0.28	0.41	0.89	0.72	0.76	0.85	1.54	0.14
Finland	0.63	0.76	—	—	7.97	18.85	0.03	0.80	0.11	0.17	0.40	0.61	2.77	1.70	0.09	0.52	0.23	0.52	—	0.33
France	1.31	1.29	0.94	0.77	0.48	0.44	0.34	0.92	0.68	0.73	1.22	1.06	0.87	0.90	1.02	1.07	1.02	0.82	0.29	0.11
Germany, Fed. Rep. of	0.25	0.43	0.05	0.70	0.41	0.41	0.62	0.39	0.47	0.57	1.31	1.09	0.76	0.72	1.29	1.22	0.87	0.84	0.68	1.72
Ireland	5.18	8.88	10.27	5.04	1.55	0.69	0.09	0.04	0.09	0.08	1.64	1.73	0.36	0.54	0.18	0.31	1.18	0.58	—	0.04
Italy	0.38	0.58	0.25	0.19	0.58	0.57	4.43	2.86	0.38	0.15	0.62	0.78	1.27	1.36	0.95	0.81	1.53	2.17	1.15	0.02
Netherlands	3.45	3.65	0.51	1.85	1.01	1.00	1.41	4.93	2.43	3.63	1.90	1.78	0.49	0.48	0.68	0.76	0.65	0.87	0.16	0.41
Norway	1.42	1.81	2.87	1.17	3.16	1.14	3.58	1.83	1.06	0.97	0.58	0.86	1.68	0.94	0.52	1.06	0.45	0.28	—	—
Sweden	0.18	0.29	—	0.24	4.31	3.58	0.04	0.06	1.52	1.08	0.73	0.41	0.80	0.75	1.30	1.32	0.32	0.37	—	0.31
Switzerland	0.30	0.39	0.03	1.15	0.03	0.14	0.05	0.06	0.01	—	2.60	2.28	0.41	0.68	0.61	0.76	4.55	3.73	7.92	0.19
United Kingdom	0.43	0.58	3.86	2.30	0.40	0.52	1.63	1.43	0.12	0.35	1.28	1.66	0.72	0.83	1.18	0.94	1.17	1.35	0.12	1.95
Western Europe	0.80	0.94	1.08	1.03	0.72	0.79	1.32	1.34	0.54	0.62	1.23	1.21	0.90	0.91	1.04	0.98	1.14	1.17	1.07	1.46
Greece	1.66	3.28	0.16	0.23	2.41	1.80	4.75	0.55	0.38	0.73	0.75	1.17	2.13	2.47	0.25	0.19	0.84	0.97	—	—
Portugal	0.57	0.67	5.71	3.67	10.14	11.67	—	—	6.29	9.50	0.71	1.83	1.29	1.67	0.43	0.33	0.71	0.33	0.14	0.33
Spain	0.84	1.58	1.16	0.75	0.62	0.73	0.80	3.86	12.17	7.70	0.49	0.78	1.36	2.08	0.70	0.44	1.71	1.22	0.10	0.05
Turkey	6.04	8.33	—	0.21	1.96	3.46	0.15	0.04	1.44	3.54	0.26	0.21	1.30	1.54	0.15	0.13	0.30	0.38	—	—
Yugoslavia	0.04	0.68	—	0.10	7.76	5.00	0.02	0.34	—	—	0.35	1.24	1.78	1.21	0.61	0.79	1.24	2.00	0.02	0.02
Southern Europe	1.23	2.19	0.90	0.55	2.12	2.08	1.01	2.28	8.28	4.77	0.48	0.92	1.49	1.95	0.59	0.43	1.42	1.24	0.07	0.03
United States	2.11	1.80	1.45	1.55	1.76	1.80	0.65	0.57	1.94	2.40	0.80	0.83	0.43	0.55	1.11	1.14	0.71	0.63	1.43	0.57
Japan	0.28	0.14	0.23	0.41	0.81	0.61	0.37	0.15	0.07	0.03	0.58	0.52	1.90	1.58	0.83	1.01	0.80	0.82	0.45	1.18

Source: As for table 5.2.

[a] Exporting country's market share of exports of indicated commodity group divided by country's market share of total exports to oil-exporting countries.

[b] For descriptions, see table 5.6.

Finland's over-all pattern of comparative advantage differed more from the regional average than did that of any other west European country, crude materials being in a dominant position, reflecting the importance of wood and timber, and of pulp and paper. The index for the former increased from 40 in 1973 to 61 in 1977, while that for the latter rose from 17 to 20. This, together with the absence of exports in a large number of product groups (33 in 1973 and 22 in 1977, excluding SITC 9), resulted in a highly skewed export distribution. Much the greatest comparative advantage in manufactures was in the two forest-based groups: wood and cork manufactures, and paper and paperboard. What was important here was the significant strengthening of Finland's comparative advantage in the former (the index rising from 8 to 17), as demand from the oil-exporting countries for these products rose extremely rapidly, reflecting in large part the construction boom.[106]

But, as shown above, Finland's over-all export performance was impressive, its share of most commodity sections rising sharply between 1973 and 1977. This was attributable mainly to a small number of commodity groups (in addition to the forest-based items), the most notable of which were: crude chemicals from coal, petroleum and gas (SITC 52); dyeing, tanning and colouring materials; manufactured fertilizers; and ships and boats. The indices of comparative advantage for these items were all substantially higher in 1977 than in 1973, indicating an increased degree of specialization in Finland's exports to the oil-exporting countries.

For *France*, as with the other larger economies, the pattern of comparative advantages tended to be more stable than for the smaller economies. One significant change was the rise in the position of railway vehicles from forty-third to second place (though these are subject to large and erratic annual fluctuations). The rise in France's comparative advantage index for machinery and transport equipment appears to have been attributable mainly to railway vehicles, together with the improved position for road vehicles.

The other major change in ranking was for meat, which rose from thirty-second to third position in 1977 (when exports amounted to $74 million). Sugar moved up from second to first place, but was negligible in value terms. The index for medicinal and pharmaceutical products decreased, but this group was still in fifth place on the comparative advantage scale in 1977, followed by perfume materials, etc. (SITC 55).

As would be expected, the *Federal Republic of Germany*'s comparative advantage in exports to the oil-exporting countries lay in machinery and transport equipment, though the index declined slightly between 1973 and 1977. Probably of more significance was the fall in the index for chemicals, from 1.31 to 1.09. In 1973, the first five positions were occupied by: metal-working machinery; electrical apparatus for medical purposes; dyeing, tanning and colouring materials; textile machinery; and explosives and pyrotechnic products. The last of these product groups had fallen to forty-first position by 1977, but the other four still ranked among the top ten. Coal had risen to seventh place, but was under $16 million in value. In relative terms, the biggest shift in the Federal Republic of Germany's comparative advantage was the improvement for beverages, referred to in the previous section.

Ireland's exports to the oil-exporting countries, like those of Finland, were highly specialized. Comparative advantage lay over whelmingly with food and live animals, and beverages and tobacco (the first overtaking the second between 1973 and 1977). The index for live animals rose from 30 in 1973 to 116 in 1977, the highest figure for any country or product group, indicating that Ireland had an extremely strong comparative advantage in this commodity. Miscellaneous food preparations (SITC 09) moved up from fourteenth to second position in this period (with an index number of 66 in 1977). Together, these two commodity groups accounted for 37 per cent of Ireland's total exports to the oil-exporting countries. Beverages fell from third to tenth position on the comparative advantage index scale, but tobacco remained in fifth place.

Both crude and manufactured fertilizers (SITC 27 and 56, respectively) lost ground very sharply. Despite this, Ireland displayed a strong and increasing comparative advantage in chemicals, explained mainly by medicinal and pharmaceutical products—reflecting specialization in health care products—and perfume materials, etc. (SITC 55), which occupied fifth place in 1977. The highest ranking finished manufactured groups in that year were electricity distributing equipment (twelfth) and miscellaneous manufactured articles (SITC 89, in fifteenth position).

The indices of *Italy*'s comparative advantage are influenced more than those of most other countries by exports of petroleum, presumably reflecting shortages of refining capacity in some of the oil-exporting countries in the mid-1970s.[107] Otherwise, Italy's comparative advantage was strongest in semi-manufactures and miscellaneous manufactures (SITC 8, roughly consumer goods), with further shifts in this direction in the four years to 1977. Product groups with high rankings were leather and manufactures; sanitary, plumbing and heating fittings; furniture; clothing; footwear; and miscellaneous manufactured goods. All of these groups except footwear improved their relative positions and ranked among the first ten in 1977. Italy's comparative advantage in machinery and transport equipment, however, declined significantly, only domestic electrical equipment improving its position (to eighth in 1977).

Hence there was a marked shift in Italy's revealed comparative advantage in manufactures. The product groups in which Italy's position was strongest were among those which might be expected to be particularly price elastic. This, combined with the substantial effective depreciation of the lira after 1975, would help to explain Italy's impressive relative export performance in this period. The relationship, however, could well be two-way: an undervalued currency leading to relatively fast expansion of exports—and thus increased "revealed" comparative advantage—in the more price elastic product groups.

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[106] By contrast, Finland's comparative advantage in paper and paperboard declined steeply (the index falling from 39 to 20), which explains the large fall shown for semi-manufactures (SITC 6) in table 5.10.

[107] Italy's total export of mineral fuels to the oil-exporting countries reached $184 million in 1976, but declined to $150 million in 1977.

In the present context, the *Netherlands* is chiefly notable for its remarkably low comparative advantage in manufactures other than chemicals. Between 1973 and 1977 the position of chemicals weakened; fuels moved into first place,[108] followed by food and live animals—meat and meat products taking over first position from hides and skins. The highest ranking manufactured groups, other than chemicals, were ships and boats (eighteenth in 1977) and footwear (twenty-third).

Before the oil price rise, *Norway*'s exports to the oil-exporting countries amounted to only $46 million. The pattern of revealed comparative advantage therefore, was probably not of great significance. Over the next four years the pattern changed greatly but, because of the importance of ships in its exports, single year figures could be misleading. In both years, however, the first five positions were taken by: fish; coal and coke; ships and boats; animal and vegetable oils and fats; and paper and paperboard. The large rise in exports of ships and boats—which accounted for 48 per cent of total exports in 1977—explains the marked increase between 1973 and 1977 in the comparative advantage index for machinery and transport equipment.

The highest index number for machinery and transport equipment, both in 1973 and in 1977, was for *Sweden*. In the latter year, four of the first ten rankings were in this commodity section: ships and boats; telecommunications apparatus; office machines; and electricity distributing equipment.

Sweden also had a strong comparative advantage in crude materials, due, in large part, to wood and lumber, and pulp and paper. But a major change took place, with oilseeds and nuts in first position in 1973 but with no exports of this commodity group recorded four years later. By contrast, metalliferous ores rose from thirtieth place on the comparative advantage scale in 1973 to first position in 1977.

Switzerland had a remarkably high revealed comparative advantage in chemicals; despite a substantial weakening by 1977,[109] it remained well above that for any other developed market economy. Four chemical groups rank in the first ten on the comparative advantage scale: medical and pharmaceutical products; dyeing, tanning and colouring materials; perfume materials, etc. (SITC 55); and chemical materials and products n.e.s. (SITC 59). These four all ranked among the first eleven in 1973, suggesting a fairly well-established relative strength in these products, at least as regards the oil-exporting countries' market.

For Switzerland, nine of the first ten product groups on the comparative advantage scale are manufactures as traditionally defined (SITC 5-8): this is a higher number than for any other country. In addition to the four chemical groups listed above, the others are: non-ferrous metals; power generating machinery; textile machinery; scientific and control instruments, photographic goods and clocks (in first position); and miscellaneous manufactured goods. A particularly interesting point about these goods is that some are included amongst those classified as "research intensive", on the basis of relatively high shares of research and development expenditure in total sales and relatively high ratios of research and development scientists and engineers to total employees. Among such product groups which are also included in the above list of those in which Switzerland has a high revealed comparative advantage are: office machinery; scientific, medical and optical instruments (SITC 861) and photographic and cinematographic supplies (SITC 862), both of which are here subsumed under scientific and control instruments, photographic goods and clocks (SITC 86); medical and pharmaceutical products (SITC 541). Switzerland also has a relatively high ranking in electrical power equipment (SITC 722), also considered as a research-intensive product.[110] Switzerland has a considerably higher average ranking for these products than any of the other developed market economies.

The indices of revealed comparative advantage for the *United Kingdom* were also unduly affected by exports recorded under SITC 9. In fact, coins other than gold (SITC 96) occupied first position in 1973, while postage packages not classified according to kind (SITC 91) had moved into this position by 1977, with firearms of war and ammunition therefor (SITC 95) in second position, and animals n.e.s., including zoo animals, dogs and cats (SITC 94) in fourth position. Some of these figures are probably more revealing of conventions in recording exports than of comparative advantage.

The more significant figures for the United Kingdom were the strong and increasing comparative advantage in chemicals and the deterioration in the relative position of machinery and transport equipment. The position improved between 1973 and 1977 for all chemicals except the miscellaneous group (SITC 59). In the latter year, four chemical groups ranked among the first ten in terms of revealed comparative advantage: crude chemicals from coal (SITC 52); dyeing, tanning and colouring materials; medicinal and pharmaceutical products; and perfumes, etc. (SITC 55). By contrast, the highest ranking group in machinery and transport equipment was agricultural machinery, in twelfth place. Road motor vehicles lost ground, from twenty-third position in 1973 to forty-sixth in 1977.

As already indicated, the revealed comparative advantage of the *south European* countries in exports to the oil-exporting countries differed greatly from that of western Europe. But there were also pronounced differences among the south European countries, as well as sharp changes between the two years shown in table 5.10, partly as a consequence of the low initial level of several countries' exports. Nevertheless, certain developments were common to these countries. Of these the most notable were the greatly strengthened comparative advantage in this period in food and live animals, in chemicals (apart from Turkey), and in semi-manufactures (except for Yugoslavia) and the offsetting loss of ground in machinery and transport equipment (with the important exception of Yugoslavia).

The patterns of specialization in non-manufactures were very much as would be expected, being based closely on resource endowments. But the degrees of specialization—as measured by the indices of revealed comparative advantage—varied considerably, Portugal and Turkey displaying the most accentuated pattern.[111]

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[108] The same factor that affected Italy's exports explains this development, presumably.

[109] The indices for Switzerland, like those for Belgium, were affected by comparatively important exports of "firearms of war and ammunition therefor" (SITC 95) in 1973, when 8.2 per cent of the country's exports to the oil-exporting countries were in SITC 9; four years later this percentage was down to 0.1 per cent.

[110] See Balassa, *op. cit.*, p. 329.

Among semi-manufactures, high rankings were recorded in 1977 in: manufactured fertilizers and in explosives and pyrotechnic products (Portugal and Yugoslavia in both cases, and Spain in the former); wood and cork manufacturers (Greece, Portugal and Yugoslavia); non-metallic minerals (Greece, Spain and Turkey); non-ferrous metals (Greece and Turkey). All of these were also closely related to resource endowments.

Among finished manufactures the following product groups ranked in the first ten on the comparative advantage scale: furniture and clothing (Yugoslavia); footwear (Spain); and ships and boats (Portugal and Yugoslavia). The latter group had ranked in third position for Spain in 1973, but had fallen to twenty-fourth place by 1977. The rankings of revealed comparative advantage in ships and boats changed markedly for some other countries in this period, most notably for Japan, where it rose from nineteenth to third position,[112] Finland (from thirtieth to sixth position), Sweden (twelfth to sixth place) and Denmark (ninth to twenty-sixth position). It maintained its high position, however, in Norway. Given the size and growth of this market (an almost ninefold increase to $1.8 billion) these changes were of considerable significance.

(vi) The impact of exports to the oil-exporting countries on west European countries' over-all foreign trade positions

The rapid expansion of exports to the oil-exporting countries in the mid-1970s had a significant impact on the geographical composition and commodity structure of west Europe's exports, and of course on trade balances.

Before the 1973 oil price rise and the ensuing import boom, the oil-exporting countries were a relatively small market for western Europe's exports, accounting for only 3.5 per cent of total exports. The share exceeded 5 per cent only for Italy and the United Kingdom, while for the Scandinavian countries it was less than 2 per cent and for Ireland only 0.8 per cent. The corresponding figure for southern Europe was 3.8 per cent, largely because of the relatively high share for Spain (6.2 per cent).[113] By 1977 these shares had more than doubled for all countries other than France, the Netherlands and Spain.

The slower growth of this market in 1978 resulted in some decline in its relative importance for a few of the European countries, a development that became more pronounced in 1979. Nevertheless, the oil-exporting countries as a group are now a market of great importance for western Europe. In 1978 they took $43 billion of the region's exports, more than North America ($39 billion) and almost twice as much as eastern Europe and the Soviet Union ($23 billion). Following the recent oil price rises, the oil-exporting countries are likely to become again the most dynamic market for the exports of the developed market economies.

There were substantial differences in the relative importance of the oil-exporting countries as a market for the various commodity groups. This market accounted for as much as 13.2 per cent of the developed market economies' total exports (including intra-trade) of machinery and equipment.[114] Given the high probability of a renewed upsurge in demand for these goods, this figure could well rise further over the next few years. Among non-manufactures, the most notable increase was for beverages and tobacco, the oil-exporting countries taking 8.3 per cent of total exports in 1977.

Oil-exporting countries share of developed market economies' total exports, by commodity sections
(Percentages)

SITC Section	*1973*	*1977*
Food and live animals (0)	3.5	6.9
Beverages and tobacco (1)	2.3	8.3
Crude materials (2)	1.5	2.4
Mineral fuels (3)	1.2	2.1
Animal and vegetable oils (4)	5.6	7.9
Chemicals (5)	4.0	5.8
Semi-manufactures (6)	4.5	9.9
Machinery and transport equipment (7)	5.2	13.2
Miscellaneous manufactures (8)	2.6	7.1
Commodities not classified elsewhere (9)	3.1	10.5
Total	3.5	7.2

The contribution made by the rise in exports to the oil-exporting countries to the increases in developed market economies' total exports varied greatly, ranging from as little as 2.7 per cent for Norway to as much as 23 per cent for Greece. These are partly attributable to three factors: the initial share of the oil-exporting countries in total exports; the share of finished manufactures in exports to the oil-exporting countries;[115] and relative export performance. The last of these was analysed in section (iv) above, where it was shown that relative performances differed considerably for some countries. The first two points are shown in columns one and two, respectively, of the text table given on the next page. In the final column, the contribution made by the oil-exporting countries' market to the growth of total exports in the mid-1970s is given.

As can be seen, this contribution was considerably larger, in relative terms, for the bigger west European economies, Switzerland and the south European countries (apart from Portugal) than for the other countries, mainly reflecting differences in the initial weight of the oil-exporting countries in total exports (column 1), though

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[111] In 1973, Portugal recorded exports in only 36 of the 75 product groups.

[112] First position in Japan in both periods was held by fish, second position in 1977 (third in 1973) by iron and steel, and fourth place in 1977 (second in 1973) by textile yarns and fabrics.

[113] Japan was rather more dependent on this market than any European country, with a figure of 7.3 per cent in 1973 rising to 14.6 per cent in 1977.

[114] Demand was of course distributed very unevenly, resulting in remarkably high dependence on this market for some industries: in 1973, almost one-third of total exports of electricity distributing equipment went to the oil-exporting countries.

[115] The effect of varying commodity patterns—examined above—was of course more complex than this, but the major element was the relative importance of finished manufactures, as these increased substantially faster than other commodity groups.

	Exports to the oil-exporting countries as a percentage of total exports 1973 [a]	*Finished manufactures* [b] *as a percentage of total exports to the oil-exporting conntries 1973*	*1973-1978 Increase in exports to oil-exporting countries as a percentage of the increase in total exports*
Austria	2.3 (4.8)	33	6.8
Belgium	2.1 (4.9)	30	7.9
Denmark	1.9 (4.8)	46	8.1
Finland	1.4 (3.9)	6	5.8
France	4.6 (8.1)	54	11.2
Germany, Fed. Rep. of	3.3 (8.5)	65	13.1
Ireland	0.8 (3.7)	17	5.4
Italy	5.4 (12.4)	53	17.0
Netherlands	2.4 (4.9)	36	7.2
Norway	1.0 (1.9)	27	2.7
Sweden	1.8 (5.2)	62	9.5
Switzerland	3.7 (8.0)	56	10.9
United Kingdom	5.3 (12.0)	62	17.0
Greece	3.3 (14.5)	17	23.0
Portugal	0.5 (1.4)	26	4.2
Spain	6.2 (12.5)	43	16.6
Turkey	3.0 (8.9)	8	16.8
Yugoslavia	2.3 (9.2)	36	17.1

[a] 1978 figures in parentheses.

[b] SITC 7 and 8.

this factor was reinforced in the bigger economies by the relatively high share of finished manufactures in their exports.[116] As these differences in the oil-exporting countries' share of total have continued (1978 figures are shown in the above text table in parentheses), and since the demand for finished manufactures is likely to go on rising appreciably faster than semi- or non-manufactures (though relative price movements are, of course, unpredictable) it would seem probable that the benefits of the upsurge of import demand in the oil-exporting countries will again accrue disproportionately to the larger developed market economies plus Switzerland and the Southern countries apart from Portugal.

The role played by exports to the oil-exporting countries in reducing western Europe's oil-induced trade deficit is brought out in table 5.11. Western Europe's net imports of mineral fuels rose by just over $38 billion between 1973 and 1978,[117] most of this increase occurring of course in 1974. During this period western Europe increased its exports to the oil-exporting countries by almost $35 billion. As imports other than fuels from the oil-exporting countries rose by less than $2 billion, western Europe had offset by 1978 much the greater part of its higher oil bill through increased net exports to the major oil-exporting countries. The region's combined crude trade deficit was in fact rather lower in 1978 than in 1973 in current dollar terms. Needless to say, relative price movements played a very considerable part in these developments.

However, although western Europe as a region largely restored its trade balance by means of higher exports to the oil-exporting countries, the figures for individual countries show a very varied pattern. In the first place, the positions of Norway and of the United Kingdom were highly favourable because of increased oil output from the North Sea, while the Netherlands benefited from continuing domestic output of natural gas. Of the remaining ten countries, only three covered the greater part of their higher oil costs by increased exports to the oil-exporting countries: the Federal Republic of Germany (with a 94 per cent coverage), Italy (78 per cent), and Switzerland (142 per cent, explained in part by the comparatively small increase in the cost of its net imports of fuel). Each of the other seven countries managed to offset only a relatively small part of their higher oil import costs by expanding exports to the oil-exporting countries.[118]

The same applied to the south European countries. For the five countries in aggregate, the cost of net imports of fuels rose by $7.7 billion (a fivefold increase, compared with a threefold increase for western Europe), while their exports to the oil-exporting countries increased by $2.4 billion.

Summary and conclusions

In the aftermath of the 1973 oil price rise, import demand in the main oil-exporting countries grew extremely fast, aggregate import volume almost doubling between 1973 and 1975. Although this rate then slowed down sharply, it continued to increase at a faster rate than total world trade. In the five years to 1978, the dollar value of the combined exports of the west and south European countries plus the United States and Japan to the twelve principal oil-exporting countries rose more than sixfold, to $76 billion.

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[116] A considerable part of the exceptionally high figure for Italy in the last column, however, was attributable to that country's favourable relative export performance (see above).

[117] This figure is affected by increased output of North Sea oil in this period.

[118] Finland, however, increased its exports to the Soviet Union in payment for the higher oil costs.

TABLE 5.11

Net imports of fuels and exports to the oil-exporting countries

(*In millions of U.S. dollars*)

Reporting country	Net imports of mineral fuels[a]							Exports to oil-producing countries						
	Value 1973	Change from preceding year					Change 1973-1978	Value 1973	Change from preceding year					Change 1973-1978
		1974	1975	1976	1977	1978			1974	1975	1976	1977	1978	
Austria	420	532	80	218	28	246	1 104	120	109	139	209	−21	30	466
Belgium-Luxembourg	1 261	2 020	−350	479	215	449	2 813	466	224	447	166	532	340	1 709
Denmark	689	420	519	76	206	95	1 316	114	75	161	20	95	101	452
Finland	517	940	−33	61	144	−106	1 006	52	62	22	52	104	42	282
France	3 818	6 914	118	1 904	442	694	10 072	1 649	1 161	1 773	100	863	685	4 582
Germany, Fed. Rep. of	4 494	5 734	58	2 609	1 215	898	10 514	2 221	1 774	2 763	1 435	2 404	1 467	9 843
Ireland	174	322	−7	51	109	46	521	16	13	44	41	53	42	193
Italy	2 658	5 809	−239	718	526	579	7 393	1 200	1 025	1 472	514	1 510	1 224	5 745
Netherlands	24	632	−471	385	−122	−193	231	567	272	515	363	322	428	1 900
Norway	340	292	−613	−279	46	−491	−1 045	46	15	75	45	46	−35	146
Sweden	1 102	1 533	203	260	65	−225	1 836	213	145	379	283	−52	160	915
Switzerland	821	592	−69	214	120	225	1 082	353	178	316	288	378	378	1 538
United Kingdom	3 325	5 718	−1 310	152	−2 371	−805	1 384	1 618	804	2 296	527	1 702	1 628	6 957
Western Europe	19 643	31 458	−2 114	6 848	623	1 412	38 227	8 635	5 857	10 402	4 043	7 936	6 490	34 728
Greece	224	568	134	158	−176	200	884	48	122	116	73	42	88	441
Portugal	170	348	31	104	50	71	604	10	6	20	−5	5	−2	24
Spain	1 001	2 413	524	830	−96	304	3 975	320	165	321	15	368	453	1 322
Turkey	173	505	96	337	360	−35	1 263	40	34	58	−7	24	54	163
Yugoslavia	336	574	5	117	108	143	947	68	82	95	96	53	128	454
Southern Europe	1 904	4 408	790	1 546	246	683	7 673	486	409	610	172	492	721	2 404
United States	6 502	15 431	1	7 768	10 317	−1 792	31 725	3 155	2 706	3 642	1 791	960	3 613	12 712
Japan	8 252	16 418	751	2 762	2 827	65	22 823	2 678	2 700	2 916	901	2 583	2 269	11 369
Total above	36 301	67 715	−572	18 924	14 013	368	100 448	14 955	11 672	17 570	6 907	11 971	13 093	61 213

Sources: For net imports of fuels, *Economic Bulletin for Europe*, vol. 31, No. 1, table 1.3 and (US and Japan) UN, *Commodity Trade Statistics*, Series D; OECD, *Statistics of Foreign Trade*, Series A and Series B; IMF, *Direction of Trade Annual*, 1972-78.

[a] Imports c.i.f. less exports f.o.b. of mineral fuels (SITC 3) from all sources.

All twenty of the developed market economies benefited from this rapid expansion of exports, but the rates of growth differed greatly: from an increase, between 1973 and 1978, of 240 per cent for Portugal to as much as 1,206 per cent for Ireland (table 5.2). A major factor in these differences was the large variations in the growth of markets, as regards both countries and commodities (examined in sub-section (ii) and (iii), respectively). At the extremes, total exports to Indonesia rose between 1973 and 1978 by 131 per cent, while those to Saudi Arabia increased by 1,071 per cent (table 5.4); and total exports of crude materials rose 177 per cent between 1973 and 1977, whereas miscellaneous manufactures grew 521 per cent (table 5.6). The major shift was towards machinery and transport equipment, which accounted for 52 per cent of total exports to the oil-exporting countries in 1978, compared with 46 per cent in 1973.

In sub-section (iv), the growth rate, in terms of dollars, of each exporting country's market in the oil-exporting countries is calculated in order to obtain an indication of relative export performance. These calculations indicate that the United Kingdom and Sweden benefited from highly favourable export patterns (i.e. their exports were concentrated in the relatively fast-growing markets). Other countries with favourable export patterns for the period as a whole (though not in every year) were Austria, Denmark, Norway and Switzerland.

Annual fluctuations in rates of market growth relative to the average were, very broadly, offsetting for the remaining west European countries, the United States and Japan. For the south European countries, the distribution of exports was initially extremely favourable—mainly because of their comparatively heavy dependence on the fast-growing market in Iraq—but was markedly unfavourable to export growth in 1975 and 1976.

The figures in table 5.9 for relative export performance (the difference between the growth rates of the market and of actual exports) show remarkably big annual fluctuations for many countries, suggesting that this market was influenced to an exceptional degree by factors other than "competitiveness" as usually understood in international trade. Nevertheless, the figures indicate that Ireland, Italy, Greece and Yugoslavia recorded growth rates well above the rates of expansion of their respective markets, implying strong competitive positions. These four countries increased their shares of total exports to the oil-exporting countries, very considerably in the case of the three smaller economies, although from low initial levels. Gains were made in most of the principal commodity groups and in the majority of individual markets. Finland and the Federal Republic of Germany also increased their over-all market shares between 1973 and 1977, though both countries experienced marked declines in relative export performances in 1975.

By contrast, the export performances of Denmark, France and Turkey were relatively weak, resulting in some loss of market shares. Portugal might also be included, but because the oil-exporting countries are such a small market for its exports, its position is less clear. But the difference between the very strong export performance of Greece and Yugoslavia, on the one hand, and the relatively weak performances of Portugal and Turkey in this market is striking (Spain occupied an intermediate position). The relative export performance figures for Austria, the Netherlands, Sweden and the United Kingdom, and also for the United States and Japan do not exhibit any very distinct patterns: developments tended to be highly volatile, annual gains alternating with losses.

The principal changes in the patterns of trade specialization, as exhibited by "revealed" comparative advantage, are examined in section (v). Between 1973 and 1977 there was a shift in the "revealed" comparative advantage in machinery and transport equipment away from western and southern Europe as a whole and to the United States and, more particularly, to Japan. Given the importance of these products in this market—an importance that could well increase during the next few years—this is a development of considerable potential significance.

The final sub-section shows that, while the oil-exporting countries have become an export market of great importance for western Europe as a whole, the extent of this importance varies greatly. This market accounts for a considerably higher share of the total exports of the larger economies, Switzerland and most of the south European countries than of the smaller economies of western Europe. In view of the likelihood that the oil-exporting countries will be the world's major growth market in the early 1980s, these differences are likely to have a significant impact on the development of trade, with a disproportionate share of the growth in exports again accruing to a small number of countries. The extent to which countries offset the higher import costs of oil in the 1970s by increased exports to the oil-exporting countries is also shown to have differed markedly.

APPENDIX TABLE

Supply and use of resources

(Percentage change over previous year, in volume)

Country and base year of price index	GDP at market prices	Imports of goods and services	Total resources	Total domestic demand[a]	Gross domestic fixed capital formation				Private consumption	Public consumption	Exports of goods and services
					Total	Residential construction	Other construction	Machinery and equipment			
Austria (1964)											
1970-1973	6.0	11.9	7.5	6.5	8.5	8.7		8.5	5.8	4.4	10.3
1974-1977	3.2	8.0	4.5	2.3	3.1	2.1		5.0	4.1	3.5	5.9
1978	1.5	−2.4	0.3	−1.9	−3.1	2.2		−9.5	−3.4	3.0	5.7
1979 M	5.2	10.3	6.7	5.0	4.6	1.0		9.3	5.1	3.0	10.9
1980 M	2.5	5.0	3.2	2.3	3.5	1.5		6.0	2.3	2.5	5.3
Belgium (1975)											
1970-1973	5.4	9.9	6.8	5.3	4.2	4.4	4.9	4.7	5.7	5.1	10.2
1974-1977	2.3	6.4	3.6	2.5	2.3	7.0	−0.8	1.6	2.7	4.0	6.0
1978	2.5	3.9	3.0	2.6	1.9	2.7	1.6		2.4	6.4	3.7
1979[b] S	3.0	4.5	3.5	3.0	2.8	—	4.2		2.8	5.1	4.5
1980[b] S	2.4	3.7	2.9	2.5	2.5	1.0	3.2		3.1	0.7	3.5
Denmark (1970)											
1970-1973	3.9	6.4	4.5	4.0	5.4	8.1	2.7	5.7	3.0	4.8	6.1
1974-1977	1.9	1.5	1.8	1.6	−1.8	−6.9	−0.9	3.6	3.1	3.2	2.6
1978	1.0	1.6	1.1	0.3	0.5	3.5	−0.6	−0.8	−1.5	3.8	3.8
1979 D	3.0	7.0	4.0	3.0	−0.5	−8.0	3.3		2.0	6.0	8.0
1980 S	0.1	−1.2	−0.2	−1.2	−3.7[c]	..	..		−1.4	2.4[c]	2.7
Finland (1975)											
1970-1973	6.1	9.1	6.7	6.0	8.0	10.7	5.9	8.8	5.6	6.0	7.2
1974-1977	1.1	−0.6	0.7	0.8	−1.2	−0.2	−1.8	−1.1	1.2	5.5	2.4
1978	1.4	−3.7	0.3	−1.8	−9.4	−1.6	−4.5	−20.0	1.2	5.0	8.0
1979 J	6.6	16.8	8.7	8.6	3.7	−2.5	−0.2	14.0	5.3	3.5	9.0
1980 J	4.5	9.0	5.5	5.0	8.0	..	..	..	4.0	3.0	6.0
France (preceding year)											
1970-1973	5.6	11.6	6.5	5.4	6.3	7.5[d]	1.2	9.1	5.7	3.8	13.0
1974-1977	2.7	4.3	2.9	2.1	—	0.5[d]	−0.1		3.4	3.3	6.1
1978	3.3	5.5	3.7	3.0	0.7	0.3[d]	1.1		4.0	3.7	7.1
1979 O	3.1[e]	6.0	3.6	3.2	1.4	−1.4[d]	2.4		3.3	2.9	5.3
1980 O	2.6	2.0	2.5	2.2	1.8	−0.6[d]	2.6		2.5	3.9	3.8
Germany, Federal Republic of[b] (1970)											
1970-1973	4.4	8.6	5.1	4.5	5.2	6.5	3.8	5.9	4.8	5.3	7.8
1974-1977	1.6	5.8	2.4	1.6	−1.4	−4.5	−1.4	1.1	3.1	2.9	5.4
1978	3.5	5.9	4.0	3.9	6.3	4.0	5.6	8.2	3.4	3.6	4.4
1979 J	4.4	10.0	5.5	5.5	8.3	7.0	7.3	9.9	2.8	3.1	5.7
1980 J	2.5	4.5	2.8	2.5	5.5-6.5	..	..	..	2.0-3.0	1.5-2.0	4.5
Ireland (1970)											
1970-1973	4.0	8.1	5.3	5.0	8.1	14.3	4.6	8.4	3.7	7.5	6.0
1974-1977	2.9	3.7	3.1	1.6	−0.9	..	..	..	1.8	5.0	7.0
1978	6.1	15.1	9.4	8.1	15.0	..	..	..	8.7	3.5	12.3
1979 J	2.8	14.4	7.2	8.4	16.0	..	..	..	5.0	3.8	4.7
1980 J	2.5	−2.5	0.4	−2.6	−2.7	..	..	..	−1.0	1.0	6.7
Italy (1970)											
1970-1973	4.2	10.0	5.0	4.7	2.1	−3.9	0.7	8.5	4.9	3.6	7.1
1974-1977	2.2	1.9	2.1	0.8	−1.8	−2.6	−1.8	−1.0	1.8	2.7	8.4
1978	2.6	8.1	3.4	1.7	−0.4	0.7	0.7	−1.9	2.9	3.5	10.8
1979 M	4.9	14.0	6.4	5.8	4.3	2.4		6.7	5.4	1.7	9.0
1980 M	2.0	0.9	1.8	1.6	1.7	1.3		2.2	2.3	2.0	2.5

APPENDIX TABLE (*continued*)

Country and base year of price index	GDP at market prices	Imports of goods and services	Total resources	Total domestic demand[a]	Gross domestic fixed capital formation				Private consumption	Public consumption	Exports of goods and services
					Total	Residential construction	Other construction	Machinery and equipment			
Netherlands (1975)											
1970-1973	5.0	9.2	6.4	4.0	3.7	6.8	−1.4	6.5	4.4	3.0	11.6
1974-1977	2.7	2.0	2.4	2.7	—	−0.4	−1.1	1.7	4.2	3.3	2.0
1978	2.4	6.5	3.8	3.9	3.1	2.5	6.1	1.1	3.7	2.4	3.5
1979[b] S	3.0	4.5	3.5	1.5	−0.5	−2.0	—— −0.2 ——		2.5	3.5	7.0
1980[b] S	2.5[f]	2.5	2.5	2.0	2.0	5.0	—— 1.0 ——		2.0	1.5	3.5
Norway (1970 and 1975)											
1970-1973	4.0	8.4	5.2	5.0	10.8[g]	7.1	4.4	18.7[g]	2.6	5.6	5.9
1974-1977	4.9	6.9	5.6	6.0	7.7[g]	3.2	6.2	10.2[g]	5.5	5.7	4.7
1978	3.0	−13.5	−2.6	−7.1	−13.4[g]	8.1	5.7	−29.1[g]	−3.8	4.4	8.7
1979 J	3.7	1.0	2.9	1.4	−9.0[g]	0.2	−6.4	−14.8[g]	0.5	2.4	5.9
1980 S	4.2	1.5	3.4	2.5	2.3[g]	1.5	—— 2.4[g] ——		2.1	6.0	5.6
Sweden (1975)											
1970-1973	2.5	4.3	2.8	1.4	2.0	−1.5	1.4	5.1	1.1	3.8	7.9
1974-1977	1.0	3.8	1.6	2.2	−0.4	−4.9	−1.4	2.9	2.5	3.4	−0.2
1978	2.7	−6.2	0.6	−1.7	−5.7	18.8	−5.2	−16.4	−0.7	3.5	8.3
1979 J	4.1	13.5[h]	5.9	5.4	6.6	1.5	5.6	11.9	2.3	4.5	7.3[h]
1980 J	3.6	4.9[h]	3.9	3.9	4.7	4.5	2.1	7.4	1.5	4.7	4.0[h]
Switzerland (1970)											
1970-1973	4.2	8.5	5.3	5.0	6.7	—— 7.1 ——		6.0	4.6	4.0	6.2
1974-1977	−1.2	1.5	−0.5	−2.0	−6.7	—— −6.5 ——		−6.9	0.2	1.4	3.4
1978	0.2	10.9	3.3	3.1	4.4	—— 2.4 ——		8.1	2.2	1.6	3.7
1979 J	0.6	6.7	2.5	2.5	7.2	—— 7.0 ——		7.5	1.5	1.0	2.5
1980 J	1.5	3.4	2.1	2.2	4,4	—— 3.5 ——		6.0	1.5	1.0	2.0
United Kingdom (1975)											
1970-1973	3.7	7.9	4.6	4.2	2.8	—	2.6	4.4	4.0	3.3	6.6
1974-1977	0.4	−0.4	0.2	−1.0	−2.0	−2.5	−4.1	0.2	−1.0	2.1	5.0
1978	3.3	3.9	3.4	3.8	1.7	..	..	..	5.3	1.7	2.1
1979 D	1.4	11.7	3.6	4.2	−3.2	..	..	..	3.9	1.1	1.5
1980 D	−1.7	−2.5	−1.9	−2.4	−2.3	..	..	..	0.5	1.0	—
Canada (1971)											
1970-1973	5.8	7.8	6.2	5.8	6.8	10.3	4.1	8.6	6.2	5.5	7.7
1974-1977	3.1	4.4	3.4	3.8	2.8	1.6	3.3	3.7	4.9	3.1	2.0
1978	3.4	4.1	3.6	2.3	−0.1	−4.6	1.5	0.9	3.0	1.2	9.3
1979[i] J	3.3[j]	7.3	4.1	4.1	4.0	−8.8	2.8	13.6	2.8	−0.1	4.0
United States (1972)											
1970-1973	3.5	6.3	3.6	3.3	3.7	9.1	−0.6	5.2	4.2	−0.1	9.2
1974-1977	2.0	3.6	2.1	2.0	−0.6	1.9	−4.5	1.5	2.8	2.3	2.6
1978	4.4	11.0	4.8	4.4	7.1	4.2	12.3	6.8	4.5	1.8	7.6
1979 J	2.3	4.2	2.4	1.8	2.2	−6.0	9.1	4.3	2.6	0.3	10.0
1980 J	−0.6										

Sources: Replies to United Nations *Questionnaires on national accounts*, and: Austria: Österreichisches Institut für Wirtschaftsforschung, *Monatsberichte*, No. 3/1980; Belgium: Institut National de Statistique, *Les comptes nationaux de la Belgique 1970-1978*, and *Budget des recettes et des dépenses pour l'année budgétaire 1980*, October 1979; Denmark: *Statistiske Efterretninger*, No. A/1979/22. *Dansk Økonomi*, September 1979, and *Konjunkturoversigt*, December 1979; Finland: *Economic Survey 1979*, September 1979, Statistical Reports, No KT 1980: 1 and Ministry of Finance, *Conjunctural Survey*, 29 January 1980; France: *Rapport sur les Comptes de la Nation 1978*, and *Comptes Prévisionnels de la Nation pour 1979 et principales hypothèses économiques pour 1980;* Germany, Federal Republic of: *Wirtschaft und Statistik*, No. 9/1979, *Statistischer Wochendienst* No. 3/1980, *Jahreswirtschaftsbericht 1980 der Bundesregierung*, January 1980, and Deutsches Institut für Wirtschaftsforschung, *Wochenbericht*, No. 4-5/1980; Ireland: *Economic Review and Outlook, Summer 1979*, and the Economic and Social Research Institute, *Quarterly Economic Commentary*, January 1980; Italy: *Quadri della contabilità nazionale italiana 1978*, and *Relazione generale sulla situazione economica del Paese 1979*; Netherlands: *Nationale Rekeningen 1978*, and Central Planning Bureau, *Macro Economische Verkenning 1980*, September 1979; Norway: *National Budget 1980*, September 1979, and *Economic Survey 1979*, January 1980; Sweden: *Nationaläkenskaper 1972-1978*, and *Preliminary National Budget 1980*, January 1980; Switzerland: *Wirtschaftsspiegel*, No. 12/1979; United Kingdom: H.M. Treasury, *Economic Progress Report Supplement*, December 1979; Canada: *Bank of Canada Review*, December 1979; United States: *Economic Report of the President, January 1980*.

Note: Key to the months in which data were released:

S = September 1979
O = October 1979
N = November 1979
D = December 1979
J = January 1980
F = February 1980
M = March 1980

[a] Including stock changes.

[b] Gross national product.

[c] Government fixed capital formation is included with government consumption.

[d] Household investment.

[e] More recent estimates indicate a GDP growth of 3.5 to 4 per cent in 1979.

[f] A forecast prepared in January foresees virtually no growth for 1980.

[g] Including ships and oil exploration;

	Data excluding ships and oil exploration are:		*Data excluding ships are:*	
	Total GDFCF	*Machinery and equipment*	*Total GDFCF*	*Machinery and equipment*
1977	10.8	17.6	11.0	15.2
1978	−1.6	−14.0	−8.2	−21.5
1979	−4.5	−5.2	−9.6	−16.4
19.80	2.7	..	2.0	..

[h] Goods only.

[i] January-September 1979 over January-September 1978.

[j] 2.8 per cent for the full calendar year.

Chapter 2

RECENT ECONOMIC DEVELOPMENTS IN SOUTHERN EUROPE

INTRODUCTION

1979 was an unfavourable year for the economies of southern Europe. Among the five largest countries, there was a further deceleration in the rate of expansion in three of them (Greece, Spain and Turkey), and only in Yugoslavia was the rate of growth (7 per cent) comparable to that in the years before 1974. In Portugal the rate of growth of output was virtually the same as in 1978 but much below the 1970-1973 average. In Spain and Turkey the rates of growth of output have been very modest, of the order of 1.5 to 2.5 per cent, which is not only much below the rates of growth prevailing before 1974, but also significantly lower than that in the more industrialized western countries. Part of the deceleration of output is due to the agricultural sector, which in 1978 had been an important support to total output growth; but most of it is due to industry and services, while the construction sector's output declined in two of the major five (Portugal and Spain) and decelerated in the other three. The deceleration of output reflected the weakening of the main components of demand: private consumption decelerated in every major country, while investment declined in Turkey and Portugal, stagnated in Spain and decelerated in Greece and Yugoslavia. Only in Yugoslavia did investment grow at a satisfactory pace or increase its share of total final expenditure. External demand continued to be very dynamic in Portugal, Greece and Spain where it was the most rapidly expanding component of final demand.

As shown in the following table the aggregate balance-of-payments deficit of these countries increased from $2.9 billion in 1978 to $4.3 billion in 1979, the deterioration being due to Greece and Yugoslavia.

Part of the deterioration is due to the effects of higher oil prices, the full effects of which will only be felt in 1980. These countries are particularly vulnerable to such a price change, not only because their self-sufficiency in oil is lower than for most advanced countries but also because they are at an intermediate stage of development where the secondary sector is expanding not so much qualitatively (by the displacement of low technology price-elastic goods by high technology price-inelastic ones) as quantitatively and the process of tertiarization has hardly begun. This explains partly the fact that the growth elasticity of energy consumption with respect to GDP remained well above unity after 1973.

Inflationary pressures increased in all countries except Spain. Excluding Turkey the average unweighted increase in the price level of the other four increased from nearly 18 to 19.5 per cent. Thus the inflation rate in these countries continues to be more than double that prevailing in the more industrialized western countries, but the difference has not changed much from 1978 to 1979. The range of the increase in prices however, varies very much from country to country with Spain and Greece at 16 to 17 per cent, Yugoslavia and Portugal at 20 to 24 per cent, and Turkey where prices increased by well over 50 per cent.

Prospects for 1980 are not particularly good because the oil price increase will tend to aggravate the balance-of-payments problems of certain countries and these will place a constraint on growth. Moreover the low expected rate of expansion of world trade rules out the possibility of the external sector acting as a major stimulus to total final demand. In these conditions 1980 will be a very difficult year in which short-run stimulatory measures will have to be combined with longer-term structural policies to improve the efficiency of the economic systems. A gradual shift in the balance of policies in this direction is already noticeable in several countries.

In 1980 there might be some convergence in the rates of expansion of these countries, as output growth could decelerate in the faster expanding ones (Yugoslavia and Greece) and recover modestly in the other three.

Current account balance of south European countries

	1977		*1978*		*1979*	
	Million US dollars	*Per cent of GDP (or GNP)*	*Million US dollars*	*Per cent of GDP (or GNP)*	*Million US dollars*	*Per cent of GDP (or GNP)*
Greece	−1 280	−4.9	−1 250	−4.0	−2 400	−6.3
Portugal	−1 500	−9.2	−800	−4.5	54	−0.3
Spain	−2 164	−1.6	1 606	1.0	1 634	0.8
Turkey	−3 385	−7.1	−1 418	−2.7	−1 126	−1.7
Yugoslavia	−1 582	−3.5	−1 017	−1.8	−2 500	−3.6
Total five countries	−9 911	−3.9	−2 879	−0.9	−4 338	−1.1

Sources: IMF, *International Financial Statistics*, February 1980; national statistics and ECE secretariat estimates.

1. OUTPUT, DEMAND, EMPLOYMENT AND PRICES (tables 1.1 and 1.2)

After a moderate recovery in 1978 there was a deceleration of output growth in *Greece* in 1979. According to preliminary estimates gross domestic product expanded by 3.9 per cent in 1979 compared with 5.8 per cent in 1978. All the main output sectors contributed to this slowdown, but particularly significant was the decline in agricultural output by 3.5 per cent following an increase of 6.5 per cent in 1978, thus reducing agricultural output to the 1974 level. This decline in agricultural output resulted from a more or less general decline of output of the main agricultural products. Apart from the vagaries of weather the low growth of agricultural output during the last six years can be attributed to a low level of investment, in particular public investment, and to a significant increase in production costs, particularly for crops of high value per unit of land. In 1979, as in the period 1974-1979, there was a significant fall in the production of vineyard products, olive products, citrus fruit and cotton.

Industrial output expanded by 5.9 per cent in 1979, compared with 6.6 per cent in 1978. This deceleration was accounted for by manufacturing which grew by 5.0 per cent in 1979, compared with 6.5 per cent in 1978. Growth decelerated during the second half of 1979. However, output continued to increase in all manufacturing branches except chemicals. Data for the first ten months of 1979 show that the main stimulus to expansion originated in consumer-goods branches particularly textiles (still the most important branch of manufacturing) and clothing.

Construction is estimated to have grown by 6.8 per cent in 1979 compared with 7.3 per cent in 1978. Services rose by 4.6 per cent following a rate of 5.2 per cent during the previous year.

The rate of increase of domestic final demand fell from 4.8 per cent in 1978 to 3.2 per cent in 1979. This was due almost exclusively to a decline in the rate of increase of private consumer expenditure (2.7 per cent in 1979 versus 5.1 per cent in 1978), whereas public consumption increased at a higher rate (5.5 per cent in 1979 versus 3.5 per cent in 1978); the rate of increase of gross fixed asset formation fell to 4.0 per cent in 1979 from 5.2 per cent in 1978 and 8.6 per cent in 1977.

The decline of the rate of increase of private consumption resulted from a large increase in the level of consumer prices (19 per cent in 1979 versus 12.6 per cent in 1978) combined with a restrictive policy for wages and salaries. The nominal average remuneration of labour (in urban areas) increased by 18 per cent in 1979, whereas it had increased by approximately 22 per cent in 1978. Retail sales over the first nine months actually fell in volume by 0.6 per cent compared to the same period of 1978, whereas in 1978 they had increased by 4.2 per cent.

The volume of private fixed investment is estimated to have grown by 3.2 per cent in 1979 compared with 4.5 per cent in 1978 and 15.5 per cent in 1977. The volume of Government fixed investment rose by 6.4 per cent in 1979 compared with 7.7 per cent in 1978 (and —10.1 per cent in 1977). Gross domestic fixed asset formation as a whole has not yet reached the level of 1973; in particular Government investment after 1974 has been just above its 1970 level. Private investment has exceeded its 1973 level, but this is mainly due to residential construction; other private investment remained essentially constant both in 1978 and in 1979.

Labour productivity in industry increased at a lower rate in 1979, by 2.6 per cent compared to an increase of 3.6 per cent in 1978; the employment index (of salaried employees and wage-earners in industry and handicraft enterprises employing ten or more persons) was 3.2 per cent higher for the first ten months of 1979 versus the corresponding period of the previous year. Although of merely indicative interest, data for the first quarter of 1979 show a rate of unemployment at 2.0 per cent of the labour force, while the average rate in 1978 was 1.7 per cent.

There was a significant acceleration of price rises in 1979 compared with the previous years. The consumer price index for the year rose by 19.0 per cent compared with 12.6 per cent in 1978. The corresponding rates for the food price index were 18.9 per cent and 14.3 per cent. The consumer price index for the last quarter of 1979 was 23 per cent higher than in the same period of 1978. The increase in wholesale prices was even stronger: for the first eleven months of 1979 they were 20.4 per cent higher than in 1978, whereas the 1978-1977 rate had been 10.3 per cent.

During 1979 the economy of *Portugal* continued to be greatly influenced by the restrictive economic measures taken during the last two years and aimed at correcting the foreign payments deficit. The deceleration in the growth of ouptut, from a rate of 5.6 in 1977 to 3.4 in 1978 and 1979, entirely reflects the weakening of domestic demand due to the stabilization policies followed since 1977. As in 1978, the only component of demand which proved to be really dynamic in 1979, was the foreign sector which expanded in real terms by 21 per cent and accounted for 72 per cent of the increase in total output. However throughout the year there was a gradual but moderate strengthening of internal demand and a deceleration of foreign demand.

Following a growth of 4 per cent in 1978, agricultural output increased in 1979 by 5 per cent. This moderate growth did not make up for the losses of real output between 1973 and 1977 and total agricultural output in 1979 was still below that for 1973. The increase in total agricultural output in 1979, which was accompanied by a widespread decline in yields per hectare, was mostly due to good harvests of olives, and grapes for wine. There were significant declines in the production of some income-elastic goods such as meat, eggs, milk products and fish, which to a certain extent reflect the declining real incomes of a large proportion of the population.

TABLE 1.1.

Output by sector, and prices, in four south European countries

(*Annual percentage changes*)

	Average		*Year*		*Average*		*Year*	
	1970-1973	*1974-1977*	*1978*	*1979*	*1970-1973*	*1974-1977*	*1978*	*1979*
	Greece				*Portugal*			
A. *Changes in output, at constant prices*								
GDP at factor cost	8.4	3.0	5.8	3.9	9.2	2.6	3.4	3.4
of which:								
Agriculture	4.5	0.6	6.5	−3.4	1.7	−4.8	4.0	5.0
Industry	13.1	3.9	6.6	5.5	10.5	2.4	3.5	3.7
Construction	7.3	−2.0	7.3	6.8	10.5	1.0	5.0	−2.0
Services	8.0	4.5	5.3	4.5	10.5	5.3	3.0	3.5
B. *GDP price deflator*	8.1	15.2	12.3	17.3	5.7	19.0	22.7	23.8
	Spain				*Turkey*			
A. *Changes in output, at constant prices*								
GDP at factor cost	6.8	3.3	2.8	1.2	6.1	8.0	3.7	0.9
of which:								
Agriculture	3.4	1.8	5.0	−4.3	1.2	6.9	2.8	1.8
Industry	9.9	3.2	2.1	2.0	7.9	10.1	3.7	−2.9
Construction	4.1	−1.1	−5.0	−1.0	5.6	7.1	4.1	2.6
Services	6.0	4.5	4.0	2.0	8.6	7.7	4.1	2.2
B. *GDP price deflator*	8.3	18.4	20.6	15.2	17.0	21.8	44.5	61.0

Sources: OECD, *National Accounts of OECD Countries, 1960-1977,* Paris, vol. II; ECE Secretariat estimates; and national statistics as follows: Greece: *Epiloghi,* December 1979. Portugal: Banco de Portugal, *Relatório do conselho de administração,* Gerência de 1978; Communication from Portuguese delegation to 35th session of ECE. Spain: *Contabilidad nacional de España, años 1964-1976,* 1977 provisional y avance de 1978; Instituto nacional de estadistica, *Avance de la evolución de las principales magnitudes macroeconomicas en el año 1979.* Turkey: Ministry of Finance, *Yillik Ekonomik Rapor 1978* and *1979*; OECD, *Economic Surveys: Turkey,* November 1978; State Planning Organization, preliminary data.

Total industrial output in Portugal grew in real terms by 3.7 per cent. This expansion is confirmed by the index of industrial production for the first half of 1979 which shows a 5.3 per cent increase over the same period of 1978.[1] In both mining and public utilities there was a faster growth of output than in manufacturing. Within manufacturing the more dynamic branches were petrol refining (due to the increase in capacity), drink, textiles, pulp and paper, wood and cork, and chemicals; in every case foreign demand played a significant role. During the first half of 1979, production declined for non-metallic minerals (affected by the crisis in construction), rubber, metal products, basic metals and transport equipment. Over-all capacity utilization increased to 79 per cent in the second quarter of 1979 compared to 78 per cent a year earlier. Capacity utilization in different branches followed the pattern of demand and production, with some increases in export-oriented sectors, small changes in industries catering for internal consumption and investment in machinery, and important declines in intermediate goods industries dependent on the construction (particularly housing) and investment sectors.

The available indicators for the construction sector (cement and structural steel sales) confirm the official forecast of a decline in the output of this branch which has been severely hit by credit restrictions, the cautious mood of private investment, and the restraint of the public sector (since 1978) in promoting any new important public works programme. The number of construction permits granted increased, however, rather rapidly in the second quarter of 1979, so that some recovery may perhaps be expected towards the end of the year and in early 1980.

Under the stimulus of a good tourist season the service sectors expanded in 1979 by 3.5 per cent. A change in methodology makes it very difficult to interpret the tourist statistics,[2] but it would appear from balance-of-payments data that tourism developed very vigorously, although perhaps somewhat less than in 1978. It would seem that catering, public administration, as well as banking and financial services, have been the most rapidly expanding service branches.

The relative growth rates of the main components of demand in Portugal did not differ much in 1979 from the 1978 pattern. The main differences are that gross fixed investment declined (by 2 per cent mainly due to a drop in residential construction) and that the growth of exports of goods and services accelerated (21.5 per cent compared with 13.9 in 1978). Private consumption, which had grown very little in 1978, virtually stagnated

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[1] As has been emphasized on many occasions, the index of industrial production over estimates the growth of value added in manufacturing industry.

[2] See, Ministério da Coordenaçáõ Económica e do Plano, *Situação socio-económica,* No. 9, September 1979.

in 1979. Public consumption, as in 1978, was the second most dynamic segment of demand (5.6 per cent increase in 1978 and 6.1 per cent in 1979).

Stocks increased much less than in the two previous years. The stagnation of private consumers' demand [3] can be explained by the decline in real wages, while the expansion of public consumption, in spite of restrictive measures (particularly those taken during the first part of 1979), shows the downward rigidity of public expenditure which accounts for the persistence of a very large public sector deficit. The decline in gross fixed capital formation affected mostly housing, public works, and investment in plant and was greatly influenced by the decision to postpone some public investment programmes. Investments in machinery, however, might have increased slightly on those for 1978 on account of higher imports and virtually unchanged domestic production of this type of goods.

Money wages seem to have increased somewhat faster than in 1978 [4] but most data refer only to the first quarter of 1979 when average wages were 17 per cent higher than a year earlier. Comparing this increase with that for the cost-of-living index, implies that the purchasing power of wages declined from 5 to 6 per cent. In a recent study the Bank of Portugal has estimated that the average increase in nominal salaries in 1979 could be about 14-15 per cent. This estimate now seems somewhat low in view of the fact that, in a number of branches, recent wage negotiations have resulted in average wage increases of about 20 per cent and also that the minimum salary was raised in September by about 32 per cent. But even if average money wages increased by 18 per cent (which at present seems to be a maximum estimate) that would imply for 1979 a decline in real wages of 7-8 per cent, i.e., a larger reduction than the 5 per cent decline in real wages in 1978. The stagnation of consumption levels is therefore explained by the evolution of other non-wage incomes and by the increase in emigrants' remittances.

To a certain extent the decline in real wages reflects the slack in the labour market. All the available indicators point to a further decrease in employment and an increase in unemployment. According to the National Institute of Statistics, the unemployed at the end of the first half of 1979 represented 8.3 per cent of the active population, an increase over the previous year of 0.4 per cent. The data of the Ministry of Labour [5] show also a declining trend in employment (declines of 0.3, 0.5 and 0.2 per cent for January, April and July, respectively) and a rapid rise in unemployment. It seems likely that unemployment at the end of 1979 could have reached nearly 9 per cent of the active population and that for the first time non-agricultural employment could decline.

The persistence of very strong inflation is one of the most unfavourable features of the Portuguese economy. As measured by the implicit price deflator of GDP, the increase in the rate of inflation was relatively small, rising from 22.7 in 1978 to 23.8 in 1979. Food prices have increased particularly fast. The acceleration of inflation seems to be due in great part to external causes (increases in the prices of raw materials and devaluation of the escudo) but the rising financial costs of enterprises and structural supply rigidities have also played an important role.

In *Spain* the 1979 target for a GDP growth rate of 4.8 per cent, set at the beginning of the year [6] was revised to 2.5 in August [7] following the aggravation of internal economic problems, the lower than expected growth of Spain's main export markets and the effects of the increase in crude oil prices in June. According to the most recent official statment, the growth of GDP in 1979 was 1.2 per cent. Earlier estimates of the Bank of Spain, released in December 1979, had put GDP growth at 1.8 to 2 per cent.[8]

Agricultural production, which had increased in 1978 by 5 per cent, declined last year by 4.3 per cent. The main declines were in sugar-beet, olive oil, cereals (except rice and maize); animal production stagnated and forestry production declined slightly. The agricultural terms of trade have deteriorated as producer prices have increased by about 10 per cent and prices of inputs have increased by 14 to 15 per cent. Producers' dissatisfaction and action to redress this situation might thus reverse in 1980 the moderating effect which agricultural prices have had in 1979 on the cost-of-living index and on the price level in general.

In the industrial sector (mining, manufacturing and public utilities) the modest rate of expansion of 2 per cent [9] in 1979 was the same as in 1978.[10] The consumer-goods branches of manufacturing (food, textiles) have expanded faster than basic industries. The production of machinery and transport equipment (including motor cars) declined considerably in 1979. It appears from the industrial enquiries of the Ministry of Industry that the growth of output decelerated rapidly in the third quarter of the year and then probably stagnated in the fourth; thus the weak phase of expansion which started in the second half of 1978 lasted at least until the third quarter of 1979.[11]

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[3] As usual, the weak demand affected mostly consumer durables which were also hit by higher interest rates and other credit restrictions.

[4] The somewhat faster growth of average money wages in 1979 than in 1978 is influenced by the fact that, during the first half of 1978, a 15 per cent ceiling on wage increases was still operative; this was later raised (in June 1978) to 20 per cent. In 1979 an 18 per cent ceiling was planned but never ratified by Parliament.

[5] For an evaluation of both sources of employment data see Banco de Portugal, *Boletin Trimestral*, vol. 1, No. 2, September 1979.

[6] Ministerio de Economia, *Aspectos básicos de la politica económica en 1979*, Primer cuatrimestre.

[7] Ministerio de Economia, *Programa a medio plazo para la economia Española*.

[8] Banco de España, *Boletin Economico*, Diciembre 1979.

[9] The estimate of the Bank of Spain is 1.5 per cent, lower than that for 1978.

[10] The 2 per cent growth rate seems likely in view of the 7 per cent increase in the demand for electric power, the increase of 12 per cent in the exports of industrial products, and the rise of 18 per cent in imports of raw materials and intermediate products for industry. The index (1972 based) of industrial production, which is published late and does not reflect the real evolution of output in several important branches (particularly metal products), shows an increase in the first seven months of 1979 (over 1978) of 7.5 per cent in energy, 3.7 in mining and 4.9 in manufacturing (other than metal manufacturing).

[11] Capacity utilization reached a minimum (of 78 per cent) in the second quarter of 1975 and increased to 84 per cent in the second quarter of 1977. The mild recovery of the second half of 1978 did not continue in 1979. In the third quarter of 1979 capacity utilization was only 79 per cent.

All the available indicators (cement consumption, subsidized housing construction, employment in the sector, etc.) indicate that the estimate of 1 per cent decline in the value added in the construction sector could be an underestimate of the actual decline in output.[12]

The tertiary sector also decelerated in 1979, tourism and catering being affected by the decline in the number of visitors in 1979, transport by the decline in agricultural production and by the slow growth of industrial output. The only service branches which probably expanded fairly rapidly in 1979 are public administration, financial institutions and some branches of transport and trade closely linked to the export sector.

Domestic demand in 1979, as in other western countries, was the main support of growth (accounting for about 80 per cent of the increase in total output) while in 1978 net exports had accounted for a large proportion of the increase in output. Domestic demand expanded by 1 per cent in 1978 and by 1.9 per cent in 1979. This acceleration is due to a slightly greater growth of private consumers' demand, influenced by a moderate growth of real wages, an increase in social transfer payments, and to a flattening of the sharply declining trend of gross capital formation since 1975. Gross capital formation did not decline in 1979 due to an increase in stocks, some acceleration of public investment and a slight increase in investment in plant which partly offset the continued fall of investment in construction. Public consumption increased at a lower rate than in 1978. The external sector continued to be the most rapidly expanding segment of total demand, exports of goods and services increasing by 6.5 per cent compared with 11 per cent in 1978. The mild recovery of domestic demand was reflected in an 11 per cent increase in the volume of imports of goods and services which had stagnated during 1978.

The low growth of output and demand was reflected in a further deterioration of employment. At the end of the fourth quarter of 1979 there were 1.3 million unemployed, representing 10.1 per cent of the active population compared with 8.2 per cent in the last quarter of 1978. The number of unemployed has therefore increased by over 23 per cent in 1979. The number of unemployed looking for a first job, who represent roughly 40 per cent of the unemployed, increased almost twice as fast as the total number of unemployed and accounted for most of the sharp increase in unemployment during the third quarter. Employment declined during the first three quarters of 1979 by 1.6 per cent or by 180,000.

Average hourly wages in industry and services continued to increase rapidly (by 20 per cent in the first seven months of the year compared with an increase of less than 10 per cent in the cost-of-living index). The increase in the wage bill however was considerably smaller because of the decline in employment and in the number of hours worked.[13] Money wages in agriculture, however, have lagged behind the increase in prices, wages increasing by 9.4 per cent during the first three quarters of 1979, compared with an increase in consumer prices of over 12 per cent.

This relative moderation of wage claims in 1979 had an obviously favourable impact in reducing inflationary pressures, as also had the trade liberalization measures of April 1979 and the appreciation of the peseta vis-à-vis the dollar.

As measured by the over-all price deflator of GDP, the increase in the price level in Spain in 1979 was about 15.2 per cent compared with 20.6 per cent in 1978. The increase in the cost-of-living index was 15.7 per cent compared with 19.8 per cent in 1978. However, the deceleration of inflation, which was very sharp between the third quarter of 1977 and the third quarter of 1978, was much more limited in 1979: there was a mild acceleration during the second half of the year, partly under the influence of higher oil prices.

In *Turkey*, the growth of output which had started to slow down in 1977 further decelerated in 1978 and grew by only 1 per cent in 1979 compared with the target rate of 7.8 per cent.[14] This slowing down was mainly due to a fall in industrial production which was affected by import restrictions (due to foreign exchange shortages) and by demand, which had been restricted at the end of 1977. In 1978 industrial output had still grown by 3.7 per cent due to the existence of stocks of imported raw materials and intermediate products. As these stocks were completely run down in 1979, industrial production in 1979 fell for the first time in decades in spite of some increase in industrial imports.

Agricultural production also slowed down in 1979, rising by only 1.8 per cent compared with a target rate of 3.8 per cent and 2.9 per cent in 1978. This deceleration was mainly due to shortages of inputs. According to estimates made in November,[15] the olive harvest was halved, hazelnut, grape and tobacco production fell by around 3 per cent, while cotton, wheat and fig production remained at the same level as in 1978. Barley, rice, citrus fruit, vegetables and sugar-beet production increased by between 5 and 7 per cent while sunflower production increased by 20 per cent.

Industrial production decreased by 3 per cent (compared with a target growth rate of 10.4 per cent) and manufacturing production by 3.6 per cent. Production increased only in some consumer-goods industries, especially textiles and clothing. Investment goods production stagnated and there were sharp falls in the ferrous and non-ferrous metals industries and especially in petrochemicals (15.5 per cent). There were also significant falls in paper, plastic, ceramics and glass production. In addition to shortages of imported raw material and intermediate goods, energy shortages forced some factories to close down temporarily. The construction sector expanded by only 2.6 per cent and the lower activity in the goods producing sectors was reflected in a general slowdown in the service sectors.

The current balance-of-payments deficit has declined from 7.1 per cent of GNP in 1977 to 2.7 per cent in 1978 and less than 2.0 per cent in 1979. This reduction was due

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[12] The October enquiry of the Ministry of Industry shows a further decline in work in progress in the construction sector.

[13] These data, although based on particularly weak statistics, are consistent with the recent estimate of the Minister of Economics of an increase in wage costs in 1979 of 16 to 18 per cent.

[14] According to the estimates in the "1980 Programme" published by the State Planning Organization in February 1980, the GDP growth rate for 1979 is 2.5 per cent. The growth rate of value added for agriculture is 1.5 per cent, for industry 2.5 per cent, and for services 3.0 per cent. These estimates are higher than those of the State Institute of Statistics' national income series published in February.

[15] State Institute of Statistics.

Table 1.2

Supply and use of resources, and prices in selected south European countries

(Annual percentage changes)

	Average		*Year*		*Average*		*Year*	
	1970-1973	*1974-1977*	*1978*	*1978*	*1970-1973*	*1974-1977*	*1978*	*1979*
	Greece				*Portugal*			
A. *Supply and use of resources (at constant prices)*								
GDP at market prices	7.8	3.0	5.9[a]	4.0[a]	8.7	2.2	3.2	3.4
Imports of goods and services	15.4	0.9	..	..	10.1	−1.3	−1.0	4.5
Total resources	9.0	2.6	..	..	9.1	1.3	2.2	3.7
Domestic demand	8.2	2.2	..	..	9.5	2.9	0.4	0.5
Gross fixed capital formation	8.9	−2.5	5.2	4.0	11.1	−1.4	4.0	..
Private consumption	7.1	4.1	5.1	2.7	7.9	3.2	1.0	0.5
Public consumption	5.8	8.9	3.5	5.5	7.5	10.1	5.6	6.1
Exports of goods and services	17.6	5.6	..	..	7.7	−6.4	13.9	21.5
B. *Prices*								
Wholesale prices	9.3	17.8	10.3	21.0	5.6	22.5	56.4	33.8[b]
Consumer prices	6.5	16.4	12.6	19.0	10.5	23.0	22.1	23.7[c]
of which: Food	8.4	16.8	14.3	18.9	8.2	27.9	22.4	28.5[b,c]
	Spain				*Turkey*			
A. *Supply and use of resources (at constant prices)*								
GDP at market prices	6.3	3.1	2.5	1.1	6.2	7.6	3.1[a]	1.7[a]
Imports of goods and services	12.0	3.1	−0.8	11.0	17.6	21.1	..	..
Total resources	7.0	3.1	2.0	2.5	7.1	8.9	..	..
Domestic demand	6.3	2.6	1.0	1.9	6.6	9.3	−1.3	1.1
Gross fixed capital formation	7.6	−0.1	−3.2	—	8.6	13.4	−16.7	−12.3
Private consumption	6.5	3.1	2.1	1.9	5.8	9.0	6.7	5.6
Public consumption	5.5	5.6	5.5	3.5	6.4	11.4	−14.0	−4.1
Exports of goods and services	14.8	7.9	11.0	6.5	15.5	3.1	..	..
B. *Prices*								
Wholesale prices	6.1	15.7	14.0	11.3[d]	15.3	19.9	52.6	61.2[b]
Consumer prices	8.4	18.7	19.8	15.7	13.5	20.6	49.5	54.2[e]
of which: Food	8.3	18.4	19.2	10.1	13.2	24.4	44.7	48.2[b]

Sources: OECD *National Accounts of OECD Countries, 1960-1977*, Paris, vol. II; national statistics; ECE *Statistical indicators of short-term economic changes in ECE countries*, United Nations, Geneva; and ECE secretariat estimates.

[a] Gross *national* product.

[b] January-October.

[c] Excluding September.

[d] January-September.

[e] January-November.

to the weaker growth of domestic demand, which in turn was exclusively due to fixed investment which declined by 16.7 per cent in 1978 and 12.3 per cent in 1979 (compared with a 10.4 per cent increase in 1977). In 1979, private fixed investment fell twice as fast as public fixed investment (19.7 per cent and 9.1 per cent respectively). The private sector's share of fixed investments in manufacturing declined from 55 per cent in 1978 to 45 per cent in 1979; 42 per cent of private fixed investment went into real estate compared with 33 per cent in 1978. The share of total investment in GNP fell from 25.4 per cent in 1977 to 20.8 per cent in 1978 and to 18.2 per cent in 1979. Another important demand feature in 1979 was the very large increase in the private sector's stocks of finished goods (112 per cent) which can be explained partly by the weakening of demand for durables.

Consumption, on the other hand, increased by 4 per cent in 1979 compared with 3 per cent in 1977 and 1978. This acceleration was mainly due to a much slower decrease in public consumption in 1979. Private consumption grew slower than in 1978 but still much faster than in 1977. Thus, private consumption was the only dynamic component of total demand in 1979.

Rising unit costs in industry, the deterioration of the supply of goods, the growing imbalance of the public sector, the ineffectiveness of attempts to secure wage restraint, sectoral bottlenecks, speculation, and the mutually reinforcing spiral effects of costs, prices and wages, led to exceptionally high rates of inflation in 1979. The price deflator of GDP which had increased by 44 per cent in 1978, rose by 61 per cent in 1979. The monthly rate of consumer price increase accelerated throughout 1979. Consumer prices increased by 54 per cent in the period

January-November 1979 compared with 49 per cent in 1978. As in 1978 the wholesale price index increased even more, by an estimated 70 per cent for the whole year. This sharp increase in wholesale prices partly reflects increases in the controlled prices of basic goods in the autumn of 1978. The devaluation in June 1979 also affected domestic prices.

As in previous years, the evolution of the economies of Cyprus and Malta was different from those of the larger countries. The rate of expansion in *Cyprus* slowed down in 1979, GDP growing in real terms by 6.6 per cent compared with 7.4 per cent in 1978. The decline in the rate of growth was spread over every major output sector except agriculture (which recovered from a minor setback in 1978) and mining. The growth of all domestic demand sectors decelerated in 1979, particularly gross domestic fixed capital formation which nevertheless continued to expand rapidly (by 10.8 per cent compared to 17.3 in 1978). The only segment of total demand which showed greater dynamism in 1979 compared with 1978 was the foreign sector where exports of goods and services increased in volume by nearly 14 per cent compared with 4.6 per cent in 1978. Although increasing in dollar terms by nearly 10 per cent, the current deficit declined slightly as a proportion of GNP (at current prices) from 15.6 per cent in 1978 to 15.0 per cent in 1979. Inflationary pressures worsened, the GDP deflator increasing in 1979 by 12.4 per cent compared to 7.5 in 1978.

There are not yet any official or authoritative estimates of the national accounts for *Malta* in 1979, but it seems clear from changes in a number of indicators that the rate of growth of GDP continued to be very high and should not be significantly below the 11 per cent increase of 1978. There was a deterioration in the terms of trade in 1979, and an acceleration of inflation, perhaps to double the 4 per cent rate of increase in 1978.

2. TRADE AND PAYMENTS

The payments situation of *Greece* deteriorated substantially during 1979. According to recent estimates [16] the current balance of payments could close in 1979 with a deficit of 2.4 billion dollars compared with one of 1.25 billion in 1978. The deterioration originated in the trade deficit which increased by 1.8 billion dollars.[17] This deterioration resulting from an estimated increase of 36 per cent in the value of imports and of 27 per cent in exports was only partially offset by an estimated increase of 0.7 billion in the net invisibles surplus. The deterioration of the trade balance originated in a very steep increase in imports during the later months of the year. The contribution of the additional oil bill to the trade deficit in 1979 is estimated at 700 million dollars. Cash payments data for the first ten months of the year confirm the improvement in the invisible surplus. Tourism and travel receipts increased by 23 per cent (the number of tourists increased by 14 per cent), the surplus on shipping by 27 per cent, and emigrants' remittances by 15 per cent.

Customs-based trade data for Greece cover only the first seven months of 1979. These show an increase in dollar values of 22 per cent for imports and 25 per cent for exports. In volume terms the increases are nearly 9 per cent for imports and 17 per cent for exports. Thus there was an important deterioration of the terms of trade even before the impact of the mid-1979 oil price increase.

The considerable improvement in the current account of *Portugal* which started in 1978 continued in 1979. According to the latest official forecasts the current balance for the full year should close with a small surplus of about $54 million compared to a deficit of 800 million in 1978 and 1.5 billion in 1977.

The elimination of the deficit is due to the very sharp increase in emigrants' remittances and to a significant improvement in the service balance due to tourism. Emigrants' remittances in 1979 increased by 46 per cent under the stimulus of the measures taken to grant favourable conditions for savings deposits coming from abroad. For the year as a whole, it is estimated that remittances grew by $775 million more than in 1978 reaching a level of around $2.4 billion. Net tourist receipts may increase by over $260 million, more than offsetting the deterioration of net investment income resulting from the rising foreign debt. The (*f.o.b.-f.o.b.*) trade balance is estimated to have deteriorated slightly (by about $130 million) on the $2.4 billion deficit of 1978. This minor deterioration, resulting from an increase in the dollar value of imports of 25 per cent and of exports of 43 per cent, is due mainly to the higher petrol prices in the second half of the year since the trade balance actually improved (by over $100 million) during the first half. The improvement in the current balance and an increase in capital inflows led (in June 1979) to a reduction in the monthly depreciation rate allowed by the "crawling peg" system from 1 per cent to 0.75 per cent per month.

Trade figures for Portugal cover only the first half of 1979. As could be expected, given the depressed level of domestic demand, imports (*c.i.f.*) increased in dollar terms by 13 per cent in 1978 and declined in volume terms by 2.4 per cent. The decline in volume was general except for machinery, where there was a small increase, and in mineral products (mainly crude oil). Reflecting the recovery of the textile sector, imports of textiles (particularly fibres) did not decline. The decline in imports was particularly severe for metal products.

In contrast with imports, exports expanded considerably, by 25 per cent in volume and 42 per cent in dollar value. This increase resulted from low domestic demand and from the downward "crawling peg" adjustment of the escudo, which made Portuguese exports more competitive in foreign markets. Moreover, unit labour costs probably declined in 1978 and 1979 in several important export branches. The increase in exports during the first half of the year was general, but particularly important in the case of textiles (30 per cent increase in volume), metals and metal products (52 per cent), and leather goods and shoes (71 per cent). The terms of trade deteriorated slightly in the first half of the year (by 1.6 per cent) and, strongly reinforced by the effect of higher oil prices,[18] continued to to so in the second half. There were no great changes in the geographical pattern of Portuguese trade but imports from Angola and exports to the Soviet Union expanded particularly fast.

According to a recent estimate of the Ministry of Trade [19] the current account balance of *Spain* in 1979 closed with a surplus of $1.6 billion, virtually identical to that in 1978. As in other west European countries the balance has changed considerably during the last two years. In 1978 the current balance was negative during the first half and strongly positive during the second half; in 1979 the greater part of the surplus was attained during the first half and (following a poor tourist season and higher oil prices) started to diminish quickly during the second half. The trade deficit [20] increased by 15 per cent (equivalent to some $622 million) as a result of a 33 per cent increase in exports and a 29 per cent increase in imports. All the deterioration occurred in the second half of the year when crude oil imports added over $800 million to the import bill.[21] The deterioration of the trade balance was more than offset by an improvement of $539 million in the service balance and of

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[16] *Epiloghi*, December 1979.

[17] In order to stop the rapid deterioration of the trade balance, tight restrictions on imports were introduced at the end of November 1979.

[18] According to recent data of the General Department of Energy, crude oil imports, which in 1978 had remained at the level of 1977 (7.4 million tons), will increase in 1979 to 8.2 million tons and to 9.1 million in 1980. The additional dollar cost of oil would thus be about $550 million for 1979 and $1.3 billion for 1980. (*Expresso*, 2 February 1980).

[19] *Información Comercial Española* (weekly), 13 December 1979.

$110 million in net transfers. The increased surplus in the service balance was due mostly to tourism. Net tourists receipts increased by nearly 14 per cent (or $676 million) in spite of a decline of 2.6 per cent in the number of visitors (from 39.9 to 38.9 million visitors). The outflow of investment income increased moderately (by $157 million), but royalty payments increased by 28 per cent and amounted to $415 million compared with 325 million in 1978. The net surplus of private transfers increased by $112 million. This is mostly the effect of the depreciation of the dollar *vis-à-vis* the currencies of the industrial western countries in which the majority of Spanish emigrants work. The basic balance closed in 1979 with a surplus of $4.8 billion (compared with 3.3 in 1978) as a result of the reversal of a public capital outflow of $395 million in 1978 [22] into a net inflow of $63 million and of the rapid increase in the net private long-term capital inflow from $2.1 billion in 1978 to $3.1 billion in 1979.

Customs-based trade data for Spain for 1979 show an increase in the peseta value of imports of nearly 14 per cent (27 per cent in dollars) and of exports of 22 per cent (nearly 39 per cent in dollars). Following the liberalization measures taken in April 1979, the largest increase in imports was in manufactured consumer goods (cars, shoes, etc.), raw materials, and semi-manufactured products. Imports of capital goods increased less than average (by 12 per cent in pesetas) and food imports increased little. The increase in exports was more evenly spread but exports of capital goods, particularly machinery, increased significantly faster than the average.

By main geographical areas the greatest relative increase in imports were those from eastern Europe (except Romania) and the European Economic Community. Spanish exports to eastern Europe and the European Economic Community, Japan and Latin America increased particularly rapidly; exports to the United States declined considerably.

Since 1950, the current account of *Turkey* has been in deficit in every year except 1973. After 1973 the deficit increased to an unprecedented $3.4 billion in 1977, or 7 per cent of GDP. As a result of the stabilization measures taken at the beginning of 1978, the trade deficit decreased by 45 per cent and the current account deficit by 63 per cent. In 1979 exports were at the same level as in 1978 ($2.3 billion) while imports increased by 10.6 per cent in value (to $5.1 billion); as a result the trade deficit increased by 21 per cent.

In spite of a (*c.i.f.-f.o.b.*) trade deficit of $ 2.8 billion, the current account deficit decreased by 20.6 per cent owing to an 87.6 per cent increase in the net invisibles surplus. This $1.7 billion surplus was mainly due to an 82 per cent increase in remittances which reached $1.8 billion at the end of the year.[23]

While total exports did not rise in 1979, their composition changed compared with 1978.[24] Agricultural exports, which increased by 49 per cent in 1978, fell by 11 per cent in 1979 and their share in total exports fell from 67 per cent in 1978 to 60 per cent in 1979. By commodity, the sharpest fall was for cotton (by 25 per cent), while grain and hazelnut exports were below their 1978 levels. However, fig and tobacco exports increased by 70 per cent, and fruit and vegetable exports increased by 64 per cent, almost triple the rate of 1978.

The dollar value of "industrial exports" (as defined in Turkish trade statistics) increased less than 10 per cent in 1978 but, despite the fall in industrial production, they increased by more than 30 per cent in 1979, raising their share in total exports to 33 per cent (from 32 per cent in 1978); 56 per cent of the total increase in industrial exports was to textiles (which accounted for 50 per cent of total industrial exports), and another 23 per cent to olive oil.

The dollar value of imports which had fallen by 21 per cent in 1978 increased in 1979 by 10.6 per cent. Manufactures increased their share in total imports from 71 per cent in 1978 to 77 per cent in 1979, with a growth rate of 7.8 per cent. Among industrial imports machinery (electrical and non-electrical) increased by 22 per cent, fertilizers more than doubled, while imports of other chemicals fell by 23 per cent. During the first three-quarters of the year, petroleum imports decreased in volume by 16.6 per cent but increased in value by 3.4 per cent. Steel and motor vehicle imports fell by 14 and 35 per cent respectively.

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[20] All figures here are given in dollars. The peseta appreciated in 1979, with respect to the dollar, by over 14 per cent.

[21] Most of it was due to higher petrol prices, but quantities imported also increased due to re-stocking.

[22] This outflow resulted from anticipated repayments of borrowing under the "oil facility" scheme.

[23] Remittances rose sharply in the first half of 1979, by 115 per cent compared to the first half of 1978, due to a preferential rate of exchange introduced in April and, from May, preferential rates of interest on the repatriated savings of workers working abroad.

[24] January-September data show a 15 per cent increase in exports; however, they fell sharply during November and December.

3. PROSPECTS AND POLICIES

The acceleration of inflation, the rapid deterioration of the current balance, and the growing deficit of the public sector, were the determining factors in the reversal of the expansionary economic policies which had been followed in *Greece* until the middle of 1978. Early in 1979 extensive price controls were introduced,[25] monetary policies were tightened and budgetary cuts announced. These policies were further reinforced in August when further restraint of public sector expenditure was introduced, interest rates were increased, credit restrictions tightened, and imports of goods of which the domestic supply seemed inelastic encouraged.

Inflation continued to worsen and the widening of the trade deficit was such that further restrictions were introduced at the end of November particularly affecting import demand. Among the most important were the introduction of a six-month deposit equal to three-quarters of the value of the imported goods, the introduction of an extraordinary consumption tax on a wide range of goods, and the prohibition of credits to finance imports. The deflationary stance of economic policy was further reinforced with the introduction of the budget at the end of November. According to the consolidated budget estimates for the public sector, revenue (in current values) should increase in 1980 by over 20 per cent and expenditure by 19 per cent. As a result the public sector savings will increase by nearly 47 per cent and the total deficit of the public sector should decline from 3.8 per cent of GNP in 1979 to 2.6 per cent in 1980. As a result, it is expected that there will be a severe reduction in public sector investment (by roughly 10 per cent in volume) but the public sector might still act somewhat expansively due to an increase in public consumption of 18 per cent which, provided inflation remains near to the forecast, would imply a volume increase of about 3 per cent. Private investment is officially expected to increase again in 1980. The expected over-all rate of growth of GNP is not very different from the actual rate in 1979 ([illegible] to [illegible].5 per cent compared with 3.8 in 1979), inflation, as measured by the month on month cost-of-living index for December, should fall to 15-16 per cent (from nearly 25 per cent in 1979), and the current account deficit should decline (in terms of national currency) from 5.4 per cent of GNP in 1979 to less than 5 per cent in 1980.

At the beginning of 1980 some of these targets appear considerably more open to doubt than others. Perhaps the most doubtful is the expected increase in the volume of private investment. Although legislation on direct industrial development grants is being prepared which could embody important stimuli to certain kinds of investment, the fact that total credit available is expected to virtually stagnate (new credits declining by 2.3 per cent) and that the decline in new credits is expected to be larger for the financing of the private sector, sheds doubt on the feasibility of attaining this target, since, as in other south European countries, the self-financing capacity of the enterprise sector is particularly weak. The expected deceleration of inflation also appears optimistic particularly as neither of the social partners were ready to accept the 11 to 15 per cent maximum increase in labour income proposed by the Government in November 1979. Rising financial, energy, and labour costs in the enterprise sector will also make it very difficult to achieve the price level target. The target to stabilize the current account deficit seems more attainable since the highly restrictive measures adopted in November should have a strong impact at least until the third quarter of 1980. As for the over-all growth target, it seems somewhat high, in spite of its modesty, and a greater slowdown in the growth of GNP is likely, unless foreign demand were to develop more favourably than expected at present.

The problems facing the *Portuguese* economy at the beginning of 1980 do not differ substantially from those listed a year ago. A rising level of unemployment, high inflation, a low rate of growth of manufacturing production, and low capacity utilization. The only area of the economy where there was a marked improvement in 1979 was the balance of payments, thanks to a sharp increase in exports of goods and services and a small increase, in real terms, of the domestic demand for foreign goods and services. The scarcity of indicators makes it difficult to trace the development of activity through the year, but it seems that there was an acceleration in the growth of output between the first and second halves of the year as a result of an increase of public consumption and a mild recovery of private consumption and investment demand, the latter favourably influenced by a less restrictive monetary policy and easier credit conditions.

According to a recent estimate, the deficit of the Public Administrations increased in 1979, in nominal terms, by 18.5 per cent, which implies that its share of GDP remained at the same level as in 1978 (10 per cent). The late adoption of the budget (June 1979) affected planned receipts more severely than planned expenditure, as is shown by the fact that in the first half of the year budget receipts had increased by 33 per cent and expenditure by nearly 52 per cent. The share of total taxation in GDP is expected to decline by one percentage point (to 25 per cent of GDP at market prices) due to the late introduction of certain tax reforms and to the low growth of social security contributions. The allocation of public expenditure in 1979 did not change from that of 1978, public consumption accounting for 14 per cent and investment for 4.5 per cent of GDP.

Monetary and credit policies continued to be restrictive but in November 1979 interest rates were lowered slightly and limits to credit expansion were extended. The money supply (M3) increased faster than in 1978 particularly under the influence of rapidly growing time deposits. Total credits granted by the banking system, however, grew less than the general price level and the decline in real terms (up to July) was particularly severe in the case of credits to the productive sector. This development may have prompted the liberalizing measures of November when the credit stimuli to certain kinds of investment were further reinforced.[26]

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[25] Some food subsidies, however, were abolished in January in view of Greece's forthcoming membership of the European Economic Community.

Other important measures taken in November by the interim Government were the abolition of the wage ceilings, a general rise in pensions, the reduction in the monthly depreciation rate of the escudo and further subsidization of a number of basic consumption goods.

The new Government has not yet introduced the budget nor set the main targets of the medium-term plan which is currently being elaborated for the period 1980-1985. It has nevertheless made public (in January 1980) several general policy orientations for 1980. The main emphasis is on reducing inflation to a maximum of 20 per cent, reducing the public sector deficit, attaining a higher rate of growth of output, releasing market forces by opening new fields to private initiative, stimulating investment, raising real wages, and lowering certain taxes. Monetary policy should continue, for a certain time at least, to be restrictive as interest rates will not be reduced until there are clear signs of a fall in inflation. It seems clear that, in spite of the likely deterioration of the current account in 1980 (as a result of higher oil prices), there is a shift towards policies aimed at stimulating domestic demand and somewhat lesser emphasis on the continued improvement of foreign accounts. This over-all impression is reinforced by the decision in early February to revalue the escudo by 6 per cent; this will of course help to moderate inflation in the short run but in the longer run could act as a brake on exports which, at present, are the only dynamic segment of total demand. Much of course depends on the change in expectations and the behaviour of the enterprise sector, and particularly of productive investment; but to increase the rate of growth of output while at the same time reducing inflation and maintaining a manageable current deficit seems at present a rather ambitious target. Even if policy is successful in reconciling these targets, no marked improvement in employment can be expected in 1980.

In early 1979 the economic situation in *Spain* was characterized by a high level of unemployment, a decelerating rate of inflation and a spectacular improvement in the current balance of payments. Strongly influenced by the high level of unemployment and the appeals of the enterprise sector for a change in policies, the Government initiated a change in policy which placed special emphasis on correcting some of the more unwelcome aspects of the short-term trends.[27]

The main targets of economic policy, as set at the beginning of the year,[28] were a rate of GDP growth of 4 per cent, a reduction of inflation to 10 per cent, the creation of 100,000 to 150,000 new jobs, a reduction in the current account surplus (to 0.8 per cent of GDP), and a growth of total investment of 8 to 9 per cent. It was hoped that these targets could be met with a moderate expansion of the public sector—particularly of public investment—a less restrictive monetary policy than in 1978, and the introduction of various fiscal and credit incentives to investment and employment. The evolution of the economy during the first half of the year was already out of line with official expectations. Private investment did not respond sufficiently to the incentives, the current account surplus continued to be much larger than expected, forcing up the exchange rate and endangering the money supply targets. Inflation was somewhat higher than expected and employment continued to decline. Some mildly corrective measures were taken in April 1979,[29] but official expectations continued to regard the original targets as feasible. The economic situation, however, deteriorated rapidly during the middle of the year: domestic output continued to stagnate, the delay in the approval of the budget and the carry-over of previous budgetary credits led to an almost doubling of the public sector deficit (estimated a a yearly rate of 400 billion pesetas or 3.5 per cent of GDP), and economic expansion in Spain's main export markets was much less than had been previously expected, partly because of the OPEC price increases in June 1979. Under these conditions the Government decided to revise its targets and short-term policies for 1979 and to introduce a set of policies of a more structural kind aimed at achieving a greater efficiency of the economic system in the medium term and inspired by the basic philosophy that the principal way of achieving this is to reinforce market mechanisms.

The revised targets were a rate of growth of output of 2.5 per cent, inflation to be reduced to nearly 16 per cent (compared to 10 per cent before), a current account surplus of around $3.5 billion (or 0.5 per cent of the new GDP target), and an increase in the wage bill of no more than 14 per cent. The public sector deficit, which was running at a yearly rate of 400 billion pesetas, was to be reduced by 100 billion. Monetary policy was mildly tightened: the maximum increase in the money supply (M3) for the whole year was set at 20.3 per cent and the increase of credit to the private sector at 16 to 19 per cent.[30] The degree of success in meeting the short-term targets has been greater for instrumental than for final ones. Thus GDP growth has remained short of the target and unemployment has continued to increase rapidly, but the public sector deficit has been only 250 billion pesetas (i.e., 50 billion less than the August target), monetary targets have been met (both for money supply (M3) and for credits to the private sector), and both the current account surplus and price increases have been very near their targets.

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[26] The new stimuli cover projects with high employment effects, ow foreign currency costs, or high export potential.

[27] For a description of the shifting priorities of policy, see *Moneda y Credito*, No. 151, December 1979.

[28] Ministerio de Economia, *Aspectos básicos de la politica económica en 1979.*

[29] These measures included: a temporary reduction of import tariffs; measures to stimulate long-term investment credits and to penalize severely borrowing abroad; simplification and stimulation of procedures widening the domestic capital market; limits to further employment in the public administrations in order to limit the growth of public spending; large increases in fuel prices; and the issuing of public debt under market conditions.

[30] The "Programme" does not give quantified medium-term macro-economic targets but states that the Spanish economy should grow 1 to 2 per cent more than the average for all industrial countries. The programme sets out a blueprint for policies to relieve unemployment (longer schooling, earlier retirement age, special employment subsidies for young women, etc.), and for the reshaping of several crisis sectors (steel, energy, shipbuilding). Also proposed are the stimulation of investment by the reform of and the introduction of greater competitiveness among financial institutions, the reshaping of the stock exchange and of fiscal and credit incentives to investment; increasing liberalization of the external sector; and various reforms of the public sector's finances. Some of these reforms have already started to be implemented.

According to recent official statements[31] the rate of expansion of the Spanish economy in 1980 should remain moderate (the likely real increase of GDP ranging from 1.5 to 4 per cent); inflation should decelerate slightly and the current account balance should swing from a surplus of $1.6 billion to a deficit of about $2.5 billion. Unemployment could increase to 10.5 per cent of the active population. Economic policies will not change substantially: monetary policies will remain mildly restrictive and fiscal policies could be somewhat less expansive than in 1979. The budget deficit will remain, in money terms, close to that for 1979, reaching 290 billion pesetas or 1.8 per cent of the estimated GDP in 1980. Public sector revenue should increase by nearly 24 per cent (on the estimated receipts for 1978) and total public expenditure by about 21 per cent. The share of total taxation in GDP should increase by 0.43 points compared with 0.25 points in 1979, but unlike recent years the increase in receipts will originate mainly from indirect taxes. On the expenditure side the largest increase is for transfer payments (which increase by 31 per cent), while the share of investment in total public expenditure will fall again. The mild stimulus of the State budget should thus affect consumption (given the sizeable increase in social transfers) and private investment (through various fiscal incentives) rather than public investment. Given the business climate prevailing at the beginning of 1980, the official forecast appears optimistic, particularly as concerns GDP growth and the current account deficit. The target for inflation is perhaps more easily within reach but the recent unrest among farmers suggests that the administrative containment of food prices cannot be prolonged indefinitely. The recent moderation in wage claims however should have a stabilizing role. Much of course depends on the evolution of expectations and the recovery of investment: the latter seems to have started in 1979, but mainly because of foreign investment and thus remains essentially volatile.

The rapid deterioration of inflation and the low rate of growth of the economy are the most prominent features of the economy of *Turkey* at the onset of 1980. The causes of the deterioration of the economic climate in Turkey are partly external[32] (rise in oil prices since 1974, recession in western countries, exhaustion of emigration opportunities, etc.). Until the end of 1977 high rates of growth were maintained thanks to short-term borrowing abroad and a rapidly growing public deficit financed by loans from the central bank. Under these conditions the foreign account continued to deteriorate rapidly. Thus, while imports increased rapidly during this period (1974-1977), both in value and volume, the volume of exports decreased partly due to excessive domestic demand for exportable goods and partly because of a fall in foreign demand due to the increase in the price of exports resulting from fixed exhange rates and rising domestic costs. In the absence of rising workers' remittances, which to a large extent had financed the increasing trade deficit, these expansionary policies were financed by short-term foreign borrowing. Short-term external debt rose from $219 million in 1974 to $6.6 billion at the end of 1977, but this ended in a crisis of confidence which was reflected in a discontinuation fo the inflow of external capital. The stabilization programme adopted in 1978 and the Economic Rescue Programme announced in March 1979 succeeded in improving the balance of payments. Compared with 1977, the 1979 trade deficit decreased by more than 30 per cent, the current account deficit by 67 per cent, and the net invisible surplus almost tripled, despite heavy interest payments.[33] As much as $5.6 billion worth of short-term debts were re-scheduled and $5 billion of new long and medium-term credits obtained.

On the domestic side there was some progress in limiting public spending and the growth of bank credit, but many other economic problems persist. Among the most important are inflation (reaching a rate of over 60 per cent), unemployment,[34] energy shortages,[35] low domestic savings,[36] stagnant investments, and insufficient exports.

The budget deficit fell in 1979 but mainly because of increased tax revenues rather than a containment of expenditure. Consolidated public expenditure had been planned to reach the equivalent of 19 per cent of national income, but it had risen to 29 per cent by the end of September. The 1980 budget, which has been presented as a "budget for growth without inflation", is nevertheless expansionary with total nominal expenditure being almost double that in the 1979 budget. The budget foresees an 85 per cent increase in current expenditure, a 52 per cent increase of investment, and a 205 per cent increase in transfers. Tax revenues are planned to increase by 52 per cent, but this depends on a tax reform which is still to be presented to Parliament as one of the measures in the new government's "economic package".[37] The new budget allows for only a 2 per cent increase in public sector employment, but the collective wage agreement of 860,000 workers will expire during 1980 and it is estimated that the new negotiations will result in a further sizeable burden on the budget, since in 1979 real wages fell in spite of large nominal wage increases.[38]

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[31] Budget speech of the Minister of Finance, *El Pais*, 2 October 1979, and unidentified sources of the Ministry of Economics, *El Pais*, 5 December 1979. The most optimistic growth range is that given by the Minister of Finance, 3-4 per cent, the least 1.5-2 by the Economics Ministry.

[32] According to a study made by the Turkish Industrialists' and Businessmen's Association, between 1974 and 1978, total income terms of trade losses amounted to $15,174 million, 25.2 per cent contributed by oil price increases and 41.4 per cent by other import price increases.

[33] During 1978 and 1979 foreign debt repayment and interest payments totalled $1.7 billion.

[34] According to the State Institute of Statistics unemployment rates continue to increase by 14 per cent annually. However, the rate is more than 20 per cent when only the non-agricultural sector is taken into account.

[35] Even though petroleum imports amount to 30 per cent of total imports and absorb 60 per cent of export income, they are still below requirements and place a constraint on capacity utilization in industry.

[36] The private savings ratio was 14.7 per cent in 1978 and 13.1 per cent in 1979.

In addition to the measures likely to be incorporated in the forthcoming economic programme, the IMF, the World Bank and the OECD are urging the Turkish Government to introduce some changes in the fourth Five-Year Plan, which is thought to be over-ambitious. For example, to achieve the planned growth rate of around 8 per cent,[39] the savings ratio should be 35 per cent; but at present it is below 15 per cent and to increase savings to such a level while inflation is at 60 per cent is unrealistic. Another policy change requested by the international organizations as a pre-condition for additional finance is to freeze agricultural support prices. The main reason for wanting to do this is to reduce subsidies on agricultural products. Apart from the already implemented devaluation, other measures will be introduced to secure the third stage of the IMF credit ($234 million) the OECD aid package ($906 million), and the IBRD credits ($180 million), as well as other credits from the international commercial banks.

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[37] The new Government, which came into power in November 1979, intended to announce an anti-inflationary programme, but its introduction was postponed for the third time in January 1980. Even though the programme is still to be announced, the following are expected to be the main points:

The value of imports is planned to increase in 1980 by 35 per cent and of exports by more than 50 per cent. This implies a growth of 30 per cent in the trade deficit.

Foreign capital investment will be encouraged. Already some procedural and legal arrangements have been made in this respect concerning repatriation of profits and capital, automatic acceptance for projects which will increase exports and energy production, and automatic acceptance for projects over certain amounts.

Bank credits will be squeezed by increasing interest rates.

Exporters will be allowed to keep 50 per cent of their earnings in foreign exchange to pay for their petroleum imports.

Import duties will be lowered (from 25 per cent to 1 per cent) which implies a loss of 40 billion TL of public revenues.

Subsidies for state economic enterprises will be cut to a minimum and their prices will be increased again between 70 and 100 per cent. Cement, sugar, fertilizers, paper and petroleum products will be given priority in this respect.

The subsidy on petroleum imports will be abolished.

Prior import deposits will be diminished substantially.

The State trade monopoly on certain imports will be abolished.

Money supply (which increased by almost 50 per cent in 1979) will be tightened.

Tax reform will help to correct the income distribution which has worsened with the present inflation. It will also aim to help restrain the increase in nominal wage.

The Turkish lira was devalued by 48 per cent against the US dollar at the end of January 1980.

[38] There are no official data showing how much real wages decreased in 1979, but several studies have been made by the trade unions and the pension organizations. According to one of these, the real wages of insured workers during the first eight months of 1979 fell by 11.2 per cent, compared with the same period of 1978. The plausibility of this result is suggested by the fact that the minimum wage increased by 64 per cent as of May 1979 while Istanbul's cost-of-living index of wage-earners increased by 83 per cent between October 1978 and October 1979.

[39] According to the "1980 Programme" published by the State Planning Organization in February, the target growth rate for GDP in 1980 is 7.5 per cent.

4. YUGOSLAVIA

(i) General trends

The most characteristic feature of economic development in Yugoslavia in the recent past was the maintenance of very high rates of expansion of output—some 7-8 per cent per year during 1977-1979. This gave rise to very fast growth in both employment and productivity, and in turn brought about sharp falls in the annual increases of unemployment. Another feature was the rise in the role of domestic demand which rose by 6-12 per cent per year. This was faster than the rise in supplies from domestic sources in 1977 and 1979. In contrast, the role of foreign trade was negative from the demand point of view; the volume of exports either declined or stagnated, while import volumes rose in some years. Imports did however support growth on the supply side. Another feature of the period was the acceleration of rates of inflation from relatively modest rates in 1977 and 1978 (15 per cent) to a high rate in 1979 (20 per cent), though this development was accentuated by external factors. The current account of the balance of payments improved in 1978 but deteriorated a great deal in 1979; this also was accentuated by external factors rather than domestic pressures. On the basis of past experience, the growth of output in Yugoslavia is determined by two conflicting forces: on one hand, the economic system as such plus the labour market press for rapid growth, while on the other hand a precarious payments balance and a high level of inflation tend to restrain it. During 1977-1979, however, the authorities enjoyed some room to manoeuvre, and took the opportunity to introduce policies which stimulated growth.

The forces pressing for high growth are present in both the micro and macro levels of the economy. The system is basically market oriented; wages are linked to income growth, and enterprises are responsible for raising real wages and housing standards for their workers, as well as for improving their own competitiveness. Furthermore, local communes are responsible for combating unemployment—which is a major problem in the country—and also shortages in housing and other services. Finally, local initiative transmits powerful pressures for growth to the federal and republican Governments, which are expected to provide infrastructure and ensure energy supplies. The highly decentralized system of income distribution and savings leaves considerable resources at the disposal of enterprises and communes to back their initiatives.

The pressure for growth has accentuated recently with the return of Yugoslav labour hitherto employed abroad. This pushed the Government to use fully its room to manoeuvre, and the more restrictive policies applied in 1975 and 1976 for balance-of-payments reasons were subsequently reversed, and replaced by expansionary policies to stimulate employment during 1977-1979.

Balance-of-payments developments have, in fact, left considerable room for policy variation in the recent past. The foreign debt burden, defined as the ratio of net credit repayments plus net interest payments in convertible currency to all receipts in convertible currency, is the main constraint: it amounted to 14 per cent in 1976 and moved up to 20 per cent in 1979 still well within the internationally acceptable limit of some 25 per cent. However, balance of payments should ease in the years to come, since the Yugoslav authorities have linked the short-term tactic of permitting some deterioration in the debt burden with a long-term growth strategy designed to restructure output in order to increase productive efficiency, promote exports and to check the rise in import dependence. The increase in import dependence has in fact already been checked. Over the last seven years, the volume of imports and of output have risen by 45 and 52 per cent respectively, and over the last three years by 21 and 24 per cent respectively. However the results on the export side, discussed below, were meagre.

The Government's capacity to stimulate development in the short run was considerable—despite relatively strong inflationary pressure. As noted, the rate of inflation, at close to 15 per cent during 1976-1978, was not excessive, and the acceleration in 1979 was due mostly to external causes. An important feature of the Yugoslav economy is that there is no trade-off between the level of inflation and the growth rate of output (or demand for employment), because, *inter alia,* supplies of labour are very elastic. Moreover certain elements in the economic system tend to stimulate inflation whatever the rate of growth. This tendency cannot be easily neutralized because economic policy instruments are either inefficient or incomplete. The freedom of enterprises with regard to income distribution tends to give rise to wage cost inflation; the deficit financing of budgets and of various funds (including investments) provokes demand inflation; and the *ex ante* planning of price increases inevitably gives rise to anticipations of inflation.

Medium- and short-term plans are intended to be the principal instrument of demand, cost and price management. They are conceived as a kind of forward market negotiation among enterprises, associations, banks, Governments and trade unions covering demand, supplies, income distribution (including wages) costs, structures, financing and prices. However, so far the conditions have not been created for this kind of planning to function properly. Another instrument is fiscal policies, which after the devolution of economic powers to regional Governments, have been almost entirely invalidated for demand management purposes. Monetary policies alone cannot produce the desired results either; the difficulty of regulating the money supply and of judging accurately its impact on the level of economic activity are very great. Moreover, monetary policies need to be selective and it is often difficult to expand credit in the directions required to finance exports, purchase of cereals, etc., whilst at the same time avoiding excessive over-all credit expansion. Finally, the Government can force enterprises and local communes into accepting limitations on output growth only if it severely limits the money supply. In the past, and in the absence of other instruments, such policies when rigorously applied caused severe problems of enterprise liquidity which tended to choke off the circulation of goods and to accentuate unemployment. The solution was to expand credit, which again led to a high growth rate. This is the reason why economic growth proceeded in the past in a stop-go cycle.

Nevertheless, there is a danger that persistent inflation will ultimately exert long-run constraints on growth: inflation adversely affects the composition of output, its quality and the propensity to export and import and in the end discourages growth. The Government is aware of this but since the origins of inflation are mainly institutional, a time-consuming consensus is needed before adequate remedies can be introduced. In fact, the Government is at present in search of such remedies.

The main weakness in performance in the recent past has been the lack of export expansion. Exports could have developed in line with high growth rates of output at the expense of domestic demand; this would have maintained the Government's room for manoeuvre for a longer time. Policies announced at the beginning of each year did imply an expansion of export volume, but the results were disappointing. In the main, export volumes have stagnated since 1976 and the expansion that took place in the volume of export to industrialized countries in 1979 (4 per cent) only recovered the ground lost in 1978. It is true that slack demand and protection in western countries tended to affect Yugoslav exports in particular because the products concerned are concentrated in low-demand and high-protection commodity groups. Nevertheless, the stagnation of Yugoslav exports was due less to these factors than to the absence of energetic promotion measures. Moreover, by keeping the domestic currency overvalued, the Yugoslavs permitted the competitiveness of these exports to decline. Certain academic circles in Yugoslavia argue that there is little sense in devaluing the currency while inflation persists—an approach which is acceptable under conditions of inflation provoked by excess demand. It may be difficult to justify under present Yugoslav conditions where the main inflationary stimulus is located on the cost side. If inflation persists for some time, the absence of exchange rate adjustments will cumulate into a considerable over-valuation of the national currency, which will inevitably damage export prospects.

Developments in 1980 will again be shaped by the micro and macro forces described above. However, the direction of such pressure may now diverge. At micro level, the pressure for fast and unchanged growth rate will persist and for the reasons described above, while the Government will try to limit the output rise to 5 per cent. The Government is anxious not to exhaust its room to manoeuvre in order to preserve some freedom to deal with unexpected economic developments in the future.

(ii) The growth of demand and output

In both 1977 and 1978 final domestic demand continued to increase fast but the rate slowed down somewhat in 1979 (table 4.1). Fluctuations in stock building alternated from year to year, and for this reason the growth of total domestic demand varied between moderate performance of 5.5 per cent in 1978 to the high rates—11.5 and 8 per cent—recorded in 1977 and 1979 respectively. Gross national product also continued to increase fast, but at a lower rate than domestic demand in 1977 and 1979. The gap in the foreign balance narrowed in 1978 but widened in 1979.

Construction continued to be the most dynamic sector of output, followed by industry. Construction benefited from the domestic housing boom and building activities abroad (which rose to a value of $1.3 billion in 1979). Industry was strongly sustained by high investments (this was concentrated in energy) and by ample supplies of intermediate products (the import volume of the latter increased by 17, 4 and 7 per cent in 1977, 1978 and 1979 respectively while their domestic output expanded by 10, 8 and 6 per cent respectively).

The increase in final domestic demand was dominated in each of the above three years by a rapid rise in investments in fixed assets which, however, slackened slightly in 1979. The profit margins of enterprises continued to decline, but ample and cheap credits kept their investments expanding fast. The investment boom was sustained primarily by a fast rise in the domestic output of capital goods (10-12 per cent annually during 1977-1979); the volume of capital goods imports increased by 8 per cent in 1977, declined by about the same amount in 1978 and recovered only 5 points in 1979.

Private consumption expanded fast in 1977 and 1978—by 7 per cent in both years—but the rate slackened to 5.4 per cent in 1979. Private incomes increased rapidly but a redistribution took place in favour of farmers especially in 1979 (table 4.2). The latter plus adverse terms of trade caused a stagnation in non-farm sector real wages in 1979, as compared with increases of 3 to 6 per cent in 1977 and 1978. The domestic output of consumer goods increased by 8 to 9 per cent annually in 1977-1979, while the import volume of consumer goods increased by 19 per cent in 1977; it declined by 11 per cent in 1978 but rose again by 21 per cent in 1979. Collective consumption expanded at rates similar to private consumption. Budget expenditures grew fast and exceeded revenues, the deficit being financed by credit from the National Bank (table 4.3). Although the money supply increased more slowly than nominal GNP, no problems with liquidity were reported.

(iii) Employment

A short review of labour market trends is the best illustration of the employment motivated growth strategy (table 4.4). The dominant feature of the labour market was the fast rise in non-agricultural employment (4 to 4.4 per cent per year) during the 1977-1979 period. Since the beginning of 1974, the year when Yugoslavs employed abroad started returning home, this rise amounted to 1.3 million, which was sufficient to accommodate the whole natural increase in the labour force (some 700 thousand), all returnees from abroad (nearly 320 thousand) and part of the potential migrants from agriculture (some 270 thousand). A similar development also took place during 1977-1979, the period under review. The rapid increase in output also permitted a fast rise in productivity; outside agriculture this amounted to 3-4 per cent per year during 1977-1979.

TABLE 4.1

Yugoslavia: volume growth of demand and output

	1976 billion current dinars	*Percentage share*	*Annual percentage change at constant 1972 prices*			
			1976	*1977*	*1978*	*1979*
Final domestic demand	677	96.9	6.1	8.4	8.4	6.8
Private consumption	351	50.0	4.4	7.0	7.0	5.4
Collective consumption	119	17.0	9.5	7.4	6.5	5.9
Gross fixed investments	207	29.4	8.2	9.5	10.5	9.7
Total domestic demand	702	100.0	0.3	11.5	5.5	8.0
Addition to stocks	25	3.6	−5.5	3.7	−2.9	12.0
Foreign balance	−19	−2.7	3.6	−4.2	1.1	−7.3
Gross national product	683	97.3	3.9	8.0	6.9	7.0
Agriculture [a]	—	—	7.3	4.8	−5.0	6.0
Industry [a]	—	—	3.4	9.4	8.7	8.0
Construction [a]	—	—	5.8	10.0	12.8	10.0
Industrial output per worker	—	—	1.0	5.7	5.3	4.3

Source: National statistics.

[a] Index of physical volume of output.

TABLE 4.2

Yugoslavia: income, wages, costs and prices

	1978 billion dinars	*Percentage share*	*Annual percentage change*			
			1976	*1977*	*1978*	*1979*
Total income	653	100.0	20.7	23.6	24.1	27.0
Disposable income	637	97.6	19.1	23.7	26.1	26.0
of which:						
Savings	118	18.0	18.2	34.6	52.9	24.0
Real wages	—	—	3.5	3.3	5.8	0.0
Nominal wages	—	—	15.5	18.8	20.9	19.7
GNP price deflator	—	—	13.4	15.1	14.9	20.4
Wage costs per unit of output	—	—	17.5	13.9	16.5	16.3
Industrial producers prices	—	—	6.1	9.5	8.4	13.0
Agricultural producers prices	—	—	14.3	12.1	9.9	27.0
Export prices	—	—	4.3	14.0	8.7	14.0
Import prices	—	—	2.7	15.0	4.6	19.0
Retail prices	—	—	9.4	13.3	13.4	22.0

Source: National statistics. *Note:* At current prices.

TABLE 4.3

Yugoslavia: money supply and consolidated budgets

	Billion dinars				
	Amount end-1978	*Changes during period*			
		1976	*1977*	*1978*	*1979*
Money supply (MI)	329.4	77.2	42.9	72.2	59.0
Bank credits	948.8	129.3	146.2	216.9	227.0
Foreign exchange transactions	−27.4	15.0	−15.2	−18.8	−25.0
Non-monetary deposits [a]	−592.0	−67.1	−86.1	−125.9	−143.0
		Amount billion dinars			
Budget revenues	—	251.7	316.7	398.3	497.0
Budget expenditures	—	263.6	323.9	408.3	509.2
Balance	—	−11.9	−7.2	−10.0	−12.2

Source: National statistics.

[a] Increase.

Table 4.4

Yugoslavia: employment

	End-1978 thousands	Percentage	Annual percentage change 1976	1977	1978	1979
Total labour force	10 451	100.0	0.8	1.4	1.4	1.3
Employment outside agriculture	5 425	51.9	3.4	4.4	4.4	4.0
Employment in agriculture	3 785	36.2	−1.9	−1.8	−2.2	−2.0
Employment abroad	800	7.7	−7.4	−5.2	−3.0	−2.0
Job seekers	735	7.0	17.6	10.3	5.0	3.5
Vacancies	72	0.7	−10.0	20.8	9.4	13.9
Effectively unemployed	441	4.2	17.6	10.2	5.0	3.5

Source: National statistics.

Another important feature was a gradual but a sharp decline in annual rates of increase of unemployment: from 20 per cent in 1975 when it was at its highest, to 3.5 per cent in 1979. Moreover, for the first time in 1979, the increase in the number of unemployed and in the number of vacancies was almost identical. Unemployment and vacancies coexist in Yugoslavia because of differences in regional levels of economic development and the lack of migration facilities.

Two conclusions can be drawn from the above trends. First, migration from agriculture has lately become the principal source of the rise in unemployment. This migration originates from redundancies in agricultural employment, accentuated by per capita income differentials between agriculture and other sectors (at present the differential is 1:2). Recent improvements in the agricultural terms of trade may ease the pressure for migration in the years to come. Secondly, if the above output and employment trends continued for a few years more the rise in unemployment would come to a halt. This trend would be strengthened by a fall in the proportion of the labour force employed on private farms, which under the above conditions would decline to 29 per cent of the total labour force in 1982, compared with 34 per cent reported in 1979.

(iv) Inflationary pressure

In all years under review, the disposable income of the population (excluding savings) increased much faster than the volume of private consumption. This indicates the presence of demand inflation (table 4.2). Costs also increased fast, and in 1979 labour costs in agriculture and import prices accelerated sharply (to 25 and 19 per cent). Retail prices increased by around 13 per cent in 1977 and 1978 but the rise accelerated to 22 per cent in 1979. Higher taxes together with the rising prices paid to the producers of agricultural commodities were the major elements in the acceleration. Over-all inflation, as measured by GNP deflators, accelerated from relatively modest levels in 1977 and 1978 (15 per cent) to a high rate in 1979 (20 per cent). The acceleration was due mainly to rising import prices which contributed 7 percentage points to total inflation in 1979 but only 1 point in 1978; and also, but to a smaller extent, to high labour costs in agriculture; these contributed 2 points to the total price rise in 1979 but 1 point in 1978. Wage costs contributed some 6 points in all three years and the share of all other factors (demand inflation, increases in taxes, etc.) declined slightly to 5.4 percentage points in 1979 as against 6.9 points in 1978. Thus, the higher rate of inflation was not closely associated with the high rate of output growth reported in 1979.

(v) Balance of payments

The deteriorating trend in the current account balance is illustrated in table 4.5; the deficit widened in 1977, improved somewhat in 1978 but increased again in 1979. This was due in a certain measure to variations in the annual volume growth rates of imports which reflected the successive accumulation and consumption of stocks and in turn short-term policies to restrict imports. The deterioration in 1979 was accentuated by factors external to the current growth of demand and output: of the $2,046 million rise in the import deficit in 1979, $1,304 million was attributable to deteriorating terms of trade of which $600 million was accounted for by increases in oil prices. The remaining $742 million was due to growth of domestic demand, of which $300 million was accounted for by relief imports following the earthquake in Montenegro. In the absence of the above special factors, the current account deficit would have amounted to some $1.8 billion in 1979. A damaging factor in accentuating the deficit was the decline in the surplus on the services account, which amounted to nearly $600 million in 1979. Remittances continued to be the most important item within this account. Despite the decline in the number of Yugoslavs employed abroad, remittances remain high—partly because returnees repatriated their savings, partly because the favourable conditions offered by Yugoslav banks have encouraged those still working abroad to continue to repatriate their earnings.

(vi) Prospects for 1980

The principal target for 1980 is to reduce the current account deficit to $2,000 million from the $2,500 million recorded in 1979. The target deficit is considered supportable in relation to the relatively low debt service ratio. If the planned reduction is to be achieved, a 6 per cent rise in export volume and no increase in import volume will be needed, provided that no major change in the terms of trade takes place.

TABLE 4.5

Yugoslavia: balance of payments and foreign debt

	1976	*1977*	*1978*	*1979*
	Annual percentage change			
Volume growth				
Exports	14.9	−5.3	−0.8	1.0
Imports	−6.8	13.1	−1.0	8.0
Terms of trade	1.6	−0.9	3.9	−4.2
	Million current US dollars			
Trade balance	−2 489	−4 380	−4 317	−6 363
Exports	4 878	5 254	5 671	6 522
Imports	7 367	9 634	9 988	12 885
Balance on services and transfers	2 654	2 798	3 300	3 005
Remittances	1 415	1 427	1 745	1 730
Tourism	725	750	935	870
Transportation	429	568	590	630
Interest	−279	−258	−305	−565
Other	364	311	335	340
Balance on current account	165	−1 582	−1 017	−3 366
Capital account	1 189	1 693	693	1 914
Net reserve movements	1 354	111	−324	−1 452
Foreign currency reserves	3 347	3 458	3 134	1 682
Gross foreign debt	8 002	9 540	11 833	14 000
Net foreign debt	7 069	8 424	10 726	12 700
Net foreign debt minus currency reserves	3 722	4 966	7 592	11 018
	Percentage			
Ratio of total net debt service to all exports	11	14	14	17
Ratio of total net convertible debt service to all convertible current receipts	14	17	16	20

Source: National statistics.

The economic targets retained call for a shift in the emphasis of economic policies; they are now to be oriented towards improving the balance of payments and no longer exclusively to promote employment. Exports are intended to contribute more to growth than in the past; since exports cannot easily replace domestic demand, over-all growth is projected to decelerate to 5 per cent in 1980. Non-agricultural output may increase by some 7 per cent and employment by roughly 3 per cent. Agriculture may increase by 3 per cent. The pressure of domestic demand on supplies is hence required to diminish, thus making possible a shift of resources into exports. This should also diminish import requirements—the more so because considerable stocks of imported goods have been carried over from 1979. Vigorous measures have been announced to curb the growth of domestic demand and to promote exports; credit policies have been tightened, but made more selective in favour of exports; a special bank has been set up to finance exports; the budget deficit is to be reduced; pressures on enterprises to resist excessive wage claims will be intensified and wages are expected to rise more slowly than enterprise incomes. Investment growth will be curbed in total (an increase of 6 per cent in volume) but selective measures will favour those intended to increase import substitution and to promote exports. Particular attention will be paid to marketing and to the foreign trade regime. The remission of taxes and duties on the exports of enterprises will be accentuated and some readjustment of foreign exchange rates is expected.

It is uncertain whether conditions are present to ensure that actual developments will move in line with this projection. A slow rate of improvement in the anti-cyclical mechanisms of the economy is bound to affect the efficiency of measures announced. Conditions abroad for export expansion are deteriorating, especially in the industrial market economies. It is doubtful whether the intended growth can be obtained without any rise in imports, though the impact of import restraint will be reduced by the high initial level of stocks of imported goods, and the introduction of new capacities in import-substituting sectors expected during 1980. Improvements in marketing and efforts to promote exports may bring results only with a time-lag, and hence may not affect the results in 1980.

CHAPTER 3

RECENT ECONOMIC DEVELOPMENTS IN EASTERN EUROPE AND THE SOVIET UNION

1. GENERAL DEVELOPMENTS

(i) Growth of national output

In eastern Europe and the Soviet Union targets for 1979 were set in most countries at levels close to the rates actually achieved in the period between 1976 and 1978, even though these were in general below the current medium-term targets. In Poland and Hungary, where new conditions—particularly in foreign trade—required a more marked adaptation, the target rates provided for a slower pace in over-all growth compared with the recent past. The objectives for 1979 reflected the fact that, under present conditions, stable growth cannot be assured over the longer term at the levels originally called for by the current five-year plans.

In the east European countries taken together, global economic activity rose by an aggregate rate of 2.3 per cent in terms of NMP, two percentage points below the 4.3 per cent rate achieved in 1978. Only Bulgaria and the German Democratic Republic recorded a modest acceleration in growth as compared with the previous year. For the first time in the 1970s negative growth was reported in Poland, where NMP fell 2 per cent below its 1978 level. In that country, the downward trend in economic expansion had started in 1975. Romania also experienced a slowdown since that year, but the rate of 6.2 per cent recorded in 1979 was one of the highest in the region. Since 1976, a deceleration in economic growth has been apparent in Czechoslovakia and Hungary, though it was more pronounced in the latter country (see chart 1.1).

In the Soviet Union, the increase of distributed national income (e.g. domestically distributed resources for consumption and accumulation) was 2 per cent in 1979, just half the rate recorded in the previous year. In recent years, domestically distributed resources in the Soviet Union have risen more slowly (by roughly one percentage point) than NMP produced. Thus the latter macro-economic aggregate might have risen by around 3 per cent. This estimate is confirmed by preliminary data showing an increasing surplus in the Soviet Union's global trade in 1979 (more than $5 billion compared with slightly more than $1.5 billion in 1978). Developments in the Byelorussian and Ukrainian SSRs taken separately followed similar trends to the Soviet economy as a whole, but the reported deceleration in the growth of NMP produced was more pronounced in both cases—increases of 3 and 1 per cent respectively, as against 6.0 and 4.5 per cent in the preceding year. This largely reflected poorer agricultural performance in both republics than the Soviet average and, in the case of the Ukrainian SSR, a modest 3 per cent increase in industrial production.

In the course of 1979, conditions in many economic sectors of crucial importance for global development deteriorated in most countries. Adverse developments in energy and fuel supplies, transport, agricultural production, and foreign trade relations intensified constraints on performance, and the accomplishment of planned tasks was impeded.[1] Breakdowns in energy, fuel and raw material supplies, which were aggravated by transport difficulties due to the hard winter, detracted from normal performance in almost all countries of the region to a greater or lesser extent. In subsequent months, efforts were made to compensate for losses, which further hampered the normal, planned pace of economic performance. These efforts were, moreover, put in hand at a time when conditions were not propitious for economic growth because of shortages in home supplies due to below-plan output performance, or to retarded commissioning of investment projects in key sectors such as the energy and fuel complex, metallurgy, and building materials in some countries. The adverse climatic conditions continued throughout the first half of the year, affecting agricultural production and performance in weather-related sectors. Increases in the price of fuel and raw materials on world markets, followed by domestic price increases or a rising burden of budgetary support to consumers in most countries of the region, aggravated an already strained global economic situation. The efforts to eradicate earlier losses hence gave limited results, and production arrears were recorded in many sectors. In general, the over-all expansion slackened as the year progressed, and the growth of net material product (NMP) remained short of the targets for 1979 in all countries. The aggregate rate of growth of NMP for the region as a whole is estimated at 2.4 per cent—two percentage points below the implied target rate and less than half as high as in 1978 (table 1.1).

The reduction mentioned earlier in the 1979 targets for over-all economic expansion as compared with those in the on-going five-year plans, has not been accompanied by any modification in the commitment to maintain

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[1] Not infrequently, reference has been made to the low level of economic efficiency and to the slow adaptation and relative rigidity of economic management as factors contributing to the slackening of economic growth. While their impact cannot be neglected, there is no evidence to suggest that the changes in these factors were markedly greater in the year 1979 than in previous years. Moreover, the level of efficiency is an outcome of the factor input structure, and as such is more a consequence than an autonomous factor influencing economic trends in the short term. As for management efficiency, changes in the system of national planning and economic management in 1979 were not of such a scope in any country of the region that they could modify appreciably they conditions for economic operation on a global level in this short period of time.

TABLE 1.1

Changes in growth of the net material product

(*Annual percentage change*)

Country and period	Net material product (billions of national currency units) at current prices	Net material product		Gross output					
				Agriculture		*Industry*		*Construction*	
		Plan	*Actual*	*Plan*	*Actual*	*Plan*	*Actual*	*Plan*	*Actual*
Bulgaria									
1976	15.1	9.0	6.5	5.0	4.1	9.2	6.8	8.0	5.0
1977	15.5	8.2	6.3	4.0	−4.6	9.2	6.8	..	11.2
1978	16.3	6.8	5.6	5.0	4.3	7.7	6.9	6.0	6.9
1979	17.4	7.0	6.5	7.0	6.0	7.8	6.0	..	5.0
1980	..	5.7	..	3.7	..	6.3		..	..
1976-1980	..	7.7	..	4.1	..	9.1		..	..
Czechoslovakia									
1976	418.2	5.0	4.1	5.3	−2.4	5.4	5.5	6.7	7.6
1977	415.0	5.2	4.2	8.2	9.1	5.3	5.7	6.2	4.6
1978	437.1	4.9	4.1	3.4	1.5	5.0	4.8	6.1	5.6
1979	449.0	4.3	2.6-2.8	3.8	−3.9	4.5	3.7	5.8	3.7
1980	..	3.7	..	7.2	..	4.0	..	3.8	..
1976-1980	..	4.9	..	3.6	..	5.7-6.0	..	6.2-6.5	..
German Democratic Republic	[a]								
1976	147.7	5.3	3.7	1.4	−4.9	6.0	5.9	6.3	6.8
1977	155.3	5.5	5.2	2.8	6.8	5.1	5.4	6.2	6.4
1978	160.8	5.2	3.6	3.5	1.4	5.7	5.4	5.7	4.8
1979	167.2	4.3	4.0	1.3	−2.0 *	5.5	4.8	4.2	4.2
1980	..	4.8	..	0.5 [b]	..	4.7	..	5.3	..
1976-1980	..	5.1	..	4.0	..	6.0	..	5.0	..
Hungary									
1976	432.4	5.0-5.5	3.0	4.0	−2.7	6.0	4.6	5.0-5.5	4.6
1977	476.0	6.0-6.5	8.0	7.0-8.0	10.3	6.0	6.6	5.0-5.5	6.4
1978	511.5	5.0	3.9	2.0-3.0	2.0	5.6-6.0	4.9	4.0-5.0	3.7
1979	550.0 *	3.0-4.0	1.0-1.5	3.0-3.5	−0.6	4.0	2.8	1.0	2.1
1980	..	3.0-3.5	..	5.0-5.5	..	3.5-4.0	..	−(3.0-2.5)	..
1976-1980	..	5.4-5.7	..	3.4	..	6.0	..	5.5-6.0	..
Poland									
1976	1 593.3	8.3	6.8	5.9	−1.1	8.8	9.3	4.2	1.6
1977	1 736.1	5.7	5.0	5.3	1.4	6.3-7.3	6.9	6.6	3.9
1978	1 902.6	5.4	3.0	4.5	4.1	6.8	4.9	..	3.8
1979	1 865.0 *	2.8	−2.0	3.9-4.8	−1.4	4.9	2.8	..	−4.8 [c]
1980	..	1.4-1.8	..	5.8	..	3.0-4.2	..	..	..
1976-1980	..	7.0-7.3	..	4.3	..	8.2-8.5	..	7.4-7.7	..
Romania									
1976	400.0 [a]	10.5	10.5	15.0-26.6	17.3	10.2	11.4	..	6.0
1977	431.7	11.3	9.0	1.9-13.6	−0.9	10.5	12.5	20.4	9.4
1978	464.3	11.0-11.5	7.4	6.9-16.1	3.4	10.6	9.6	8.3	11.2
1979	500.1	8.8	6.2	5.1-5.6	5.0	11.3	8.0	8.3	..
1980	..	8.8	..	4.7-6.0	..	11.4	..	2.7	..
1976-1980	..	11.0	..	6.9-9.0 [d]	..	11.5 [d]	..	..	..
Soviet Union		[e]							
1976	385.7	5.4	5.9	7.3	6.5	4.3	4.8	5.1	1.4
1977	405.6	4.1	4.5	5.3	4.0	5.6	5.7	6.5	2.1
1978	422.5	4.0	4.8	6.8	2.7	4.5	4.8	4.1	1.6
1979	430.5 *	4.3	2.0 [e]	5.8	−4.0	5.7	3.4	..	..
1980	..	4.0	..	8.8	..	4.5	..	..	..
1976-1980	..	4.7	..	5.1	..	6.3	..	5.8	..
Byelorussian SSR									
1976	..	5.5	6.0	2.2	6.2	6.1	7.0	3.6	2.6
1977	..	5.8	5.0	2.9	−1.6	6.3	8.3	4.4	4.0
1978	..	6.0	7.5	4.8	6.8	6.1	8.0	6.2	3.0
1979	..	6.0	3.0	3.6	−5.8	6.2	6.9	5.0	..
1980	..	7.0	..	3.8	..	5.9	..	4.0	..
1976-1980	..	6.0	..	3.8	..	7.4	..	5.0	..

TABLE 1.1 (*continued*)

Changes in growth of the net material product

(*Annual percentage change*)

Country and period	Net material product (billions of national currency units) at current prices	Net material product		Gross output					
				Agriculture		Industry		Construction	
		Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual
Ukrainian SSR									
1976	69.8	4.5	6.0	7.9	10.8	4.1	4.1	6.9	4.8
1977	72.9	4.8	4.7	4.3	5.2	5.3	5.7	4.1	2.1
1978	75.7	4.3	4.5	4.0	0.7	4.7	4.5	3.2	−0.4
1979	76.4 [a]	4.2	1.0	4.5	−6.8	5.2	3.0	4.2	..
1980	..	3.5	..	10.1	..	4.0	..	3.0	..
1976-1980	..	4.9	..	4.1	..	5.9	..	5.4	..
Eastern Europe [f]									
1976	..	7.0	5.7	..	..	7.4	7.4	..	..
1977	..	6.6	5.8	..	..	6.7	7.0	..	..
1978	..	6.1	4.3	..	..	6.7	5.7	..	..
1979	..	4.6	2.3	..	..	6.0	4.4	..	..
1980	..	4.2	..	..	..	5.2	..	..	..
1976-1980	..	6.6	..	..	..	7.5	..	..	..
Soviet Union and eastern Europe [f]									
1976	..	5.9	5.9	..	..	5.2	5.5	..	..
1977	..	4.8	4.8	..	..	5.9	6.0	..	..
1978	..	4.6	4.6	..	..	5.1	5.1	..	..
1979	..	4.4	2.4	..	..	5.7	3.7	..	..
1980	..	4.1	..	..	..	4.7	..	..	..
1976-1980	..	5.3	..	..	..	6.6	..	..	..

Sources: National statistics, plans and plan-fulfilment reports.

Note: Changes for five-year period are annual averages. For agriculutre five-year plan targets are annual percentage changes over 1975, recalculated by the ECE Secretariat. In all countries, except Romania, the original targets were five-year annual averages in relation to the previous five-year average.

[a] At constant prices.

[b] Net output including food processing.

[c] Construction and assembly work only.

[d] Based on supplementary plan. The original five-year targets were as follows: NMP—10.0-11.0 per cent; gross output in agriculture—6.5-8.6 per cent; gross output in industry—10.2-11.2 per cent.

[e] Distributed NMP.

[f] Albania excluded.

steady economic development in the long run. The global strategy of balanced growth has had decisive importance in the selection of priority sectors and the implementation of growth objectives. Annual plans transformed the over-all policy orientation into short-term objectives, while also providing for the redressment of current imbalances in order to consolidate the results achieved. But *ex post* analysis reveals that the forecast of economic trends for 1979 was based on the presumption that economic conditions would remain within normal limits and would not deteriorate. This presumption did not hold good, and indeed conditions changed to such an extent that they could be considered as qualitatively new in most countries. But ensuring the capacity of the region's economies to adapt to the new conditions while at the same time maintaining the same pace of over-all expansion as in the preceding year, was a difficult objective to accomplish. In Poland, for example, "the regrouping of resources within the national economy" was linked with an historically low growth target of 2.8 per cent for NMP. A similar though less abrupt policy re-orientation was incorporated into the Hungarian annual plan. In all other countries, some acceleration in economic growth was envisaged as compared with 1978—though in no case did the planned upward shift exceed 1 percentage point. The target rates were 0.2 percentage points higher in Czechoslovakia, the Soviet Union and the German Democratic Republic, and 1 percentage point in Bulgaria and Romania. Investment and foreign trade policies were designed accordingly.

The changes in the economic climate in the course of 1979 summarized earlier could not be overcome without reallocating resources to solve a number of urgent problems. Such resource shifts clearly aimed at improving the planned operation of the economy as a whole. In many strategically important production areas, output remained short of targets. Supplies necessary to maintain material balances and to ensure full capacity performance were insufficient. On the other hand, recourse to imports to compensate domestic materials shortages was limited by import saving policies.

The deterioration in economic conditions was felt most acutely in Poland. The poor harvest led to unplanned imports of food and animal feed, which in turn resulted in further cutbacks over and above the limits previously imposed on industrial raw material imports. Moreover, two additional work-free days to save energy were reported for November and December.

All countries in eastern Europe experienced serious difficulties in *energy and fuel supplies* in 1979. Shortages and supply breakdowns started in January and February and disturbed economic performance throughout the

CHART 1.1

Changes in net material product and factor inputs

(Indices, 1968-1972 = 100)

CHART 1.2

Efficiency indicators

(Indices, 1968-1972 = 100)

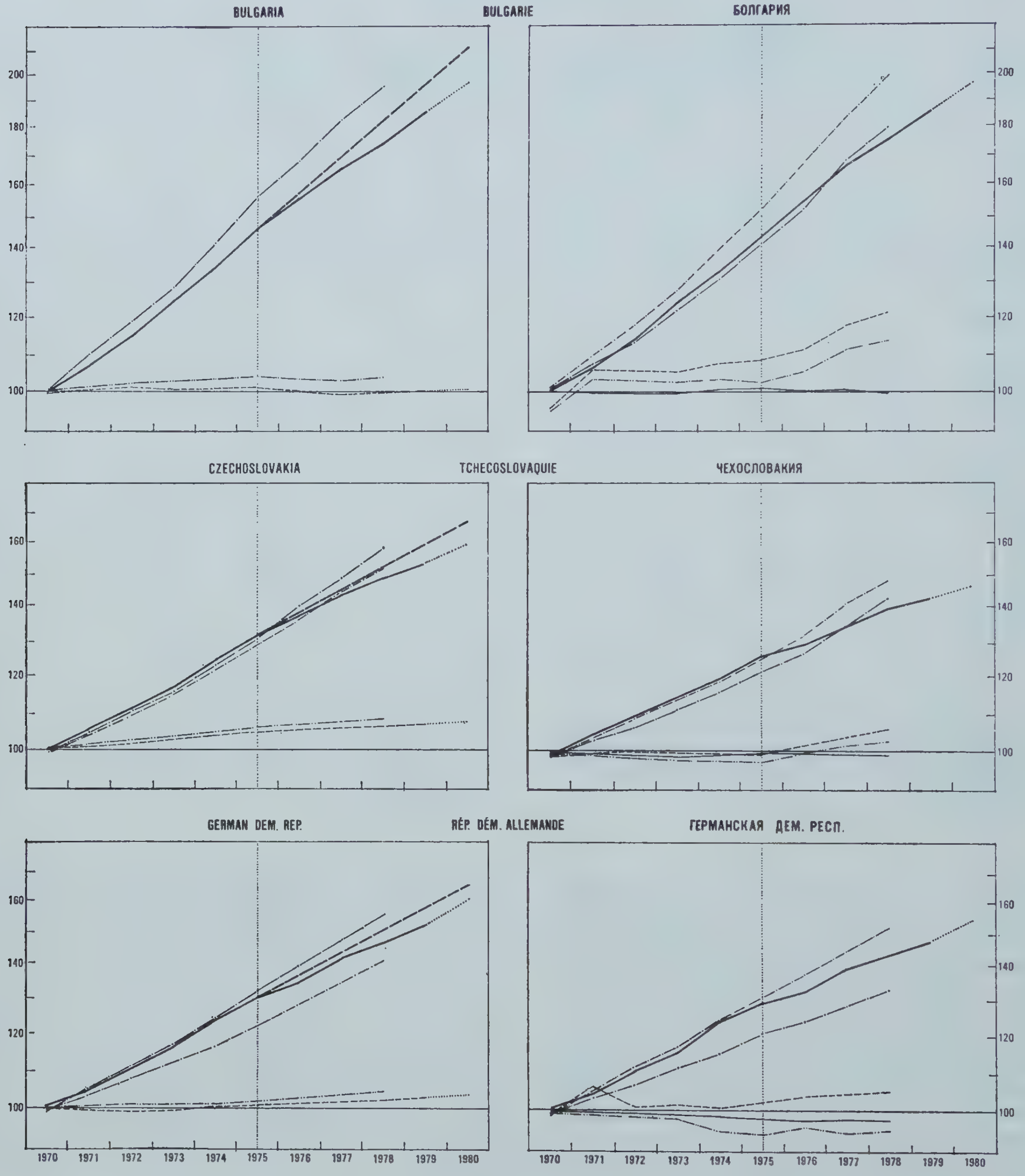


Chart 1.1 (*continued*)

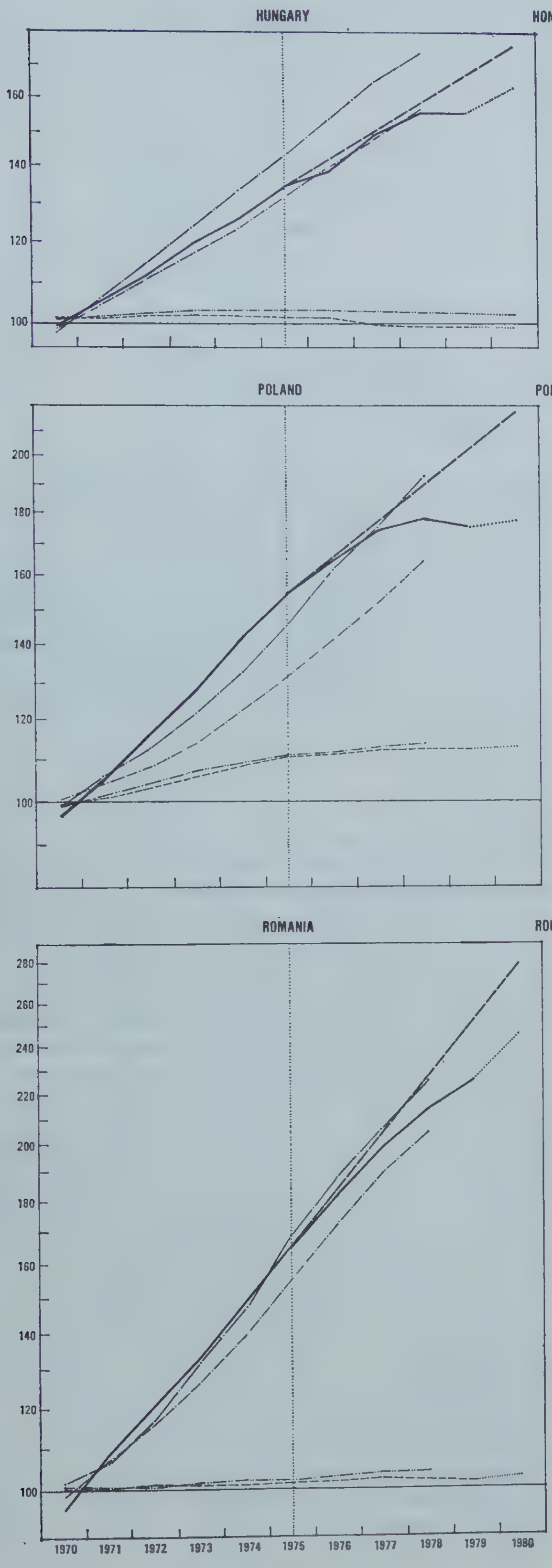


Chart 1.2 (*continued*)

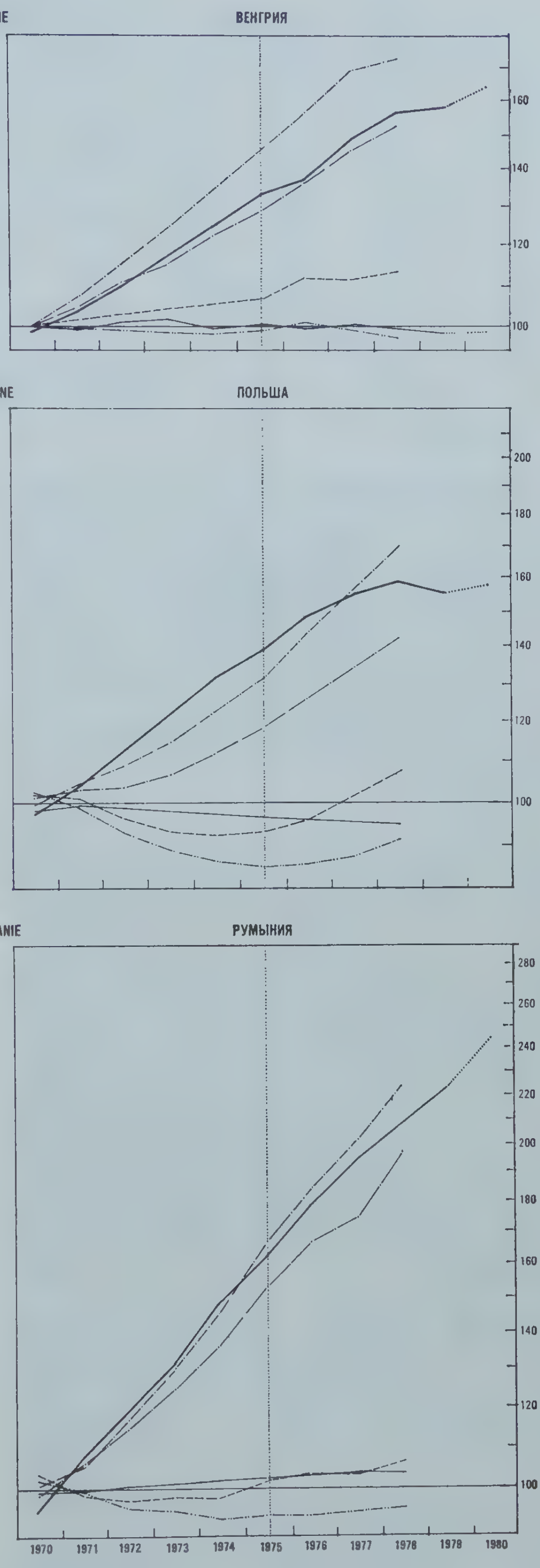


CHART 1.1 (*concluded*)

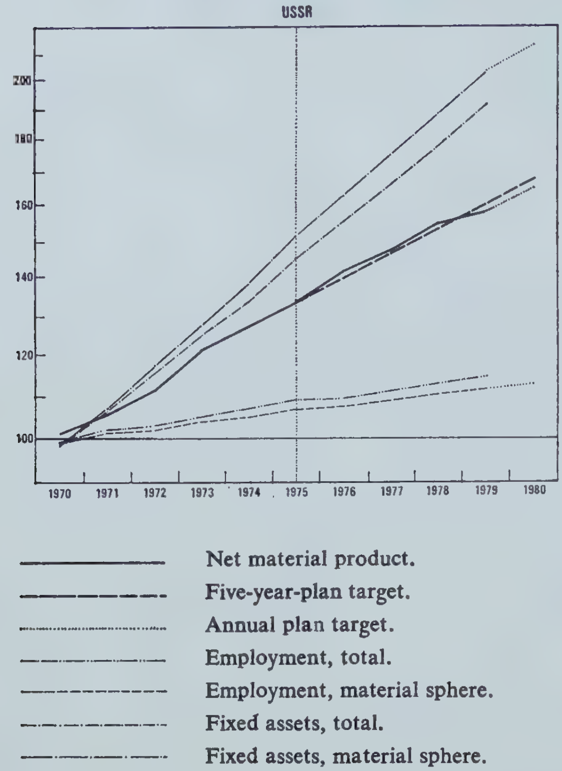
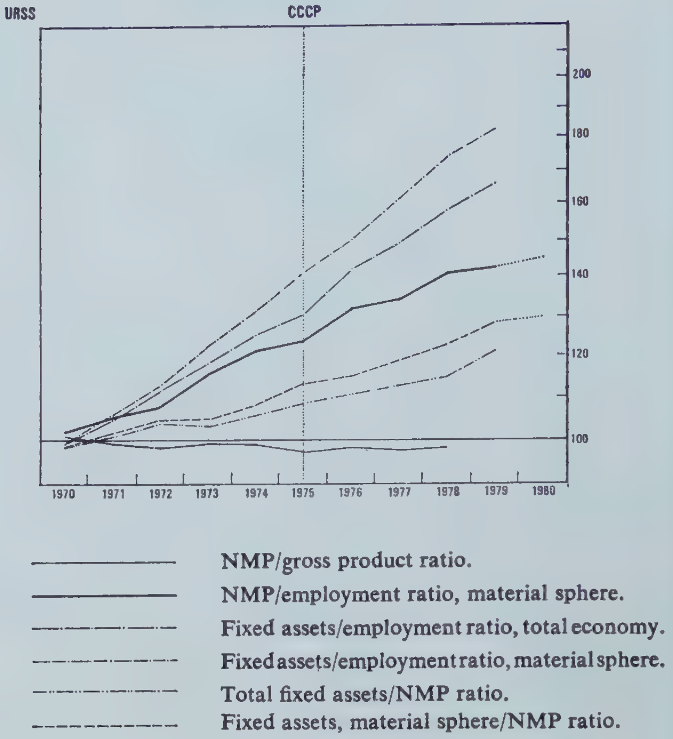


CHART 1.2 (*concluded*)



Source : National statistics.

year. The problem is not new, but it has never occurred in such an acute form. The countries had worked out long-term development programmes for fuel and energy in previous years, and the corresponding investment programmes laid down in the annual plans for 1979 enjoyed the highest priority. However, implementation of these programmes has apparently progressed too slowly, and rapidly increasing needs cannot yet be met. In all countries, therefore, new energy-saving programmes were worked out in the course of 1979. Besides many administrative restrictions on energy consumption, consumption norms were sharply revised downwards. In most countries, prices of fuel and power were considerably increased, and in some, new nation-wide controlling organisms were established. Special attention was paid to building up stocks of fuel for the 1979/80 winter season in order to prevent repetition of the events of January-February 1979.

Developments in *agriculture*, another field of special concern, did not follow the planned path in 1979. After a year of record global agricultural production throughout the region, it was over-optimistic to expect a further substantial rise in the following year. Nevertheless, the planned targets for 1979 called for increases exceeding 3 per cent in all countries but the German Democratic Republic, where the target was set at a more modest 1.3 per cent (see section on agriculture). With the exception of Bulgaria and Romania, all other countries' global agricultural output fell. Most of the decline occurred in crop production, whilst livestock output recorded positive rates of growth. The smaller grain harvest was the main element in this divergence in trends. In eastern Europe as a whole, grain output fell more than 7.5 million tons below 1978, or by roughly 10 per cent. The fall in Soviet grain production amounted to 58 million tons—output was almost 40 million tons below the 1976-1978 average. The existing imbalances between crop (and especially fodder) production and the livestock sector were aggravated in the second half of the year. Higher imports of grain were necessary to maintain the herds. Restrictive import policies and inelastic demand for imported feedstuffs together resulted in further unplanned cutbacks in imports of materials used in other sectors of the national economy. This, together with sluggish production performance in energy, fuel and some raw materials such as metals, aggravated existing shortages and strains in overall supplies. Policies to bring about more efficient use of these inputs yielded notable results in some sectors, but they were not large enough to compensate for the relative, and in some cases absolute, reduction in availability elsewhere. Consequently, *industrial performance* in 1979 fell below planned levels in many branches and, in global terms, in all countries. Gross industrial output grew at the lowest rates recorded during the 1976-1979 period. The slowdown was particularly sharp in Hungary and Poland, where growth rates of 2.8 per cent in both cases fell two percentage points below those registered in 1978. These two countries depend heavily on imported inputs, and performance in both was hence particularly affected by the foreign trade policies to reduce imports and hence trade deficits pursued in the course of 1979 (for detailed analysis see section on industry).

(ii) Investment trends and policies

The 1979 data on investment outlays (in terms of constant prices) indicate, first of all, that the global volume

Incremental capital-output ratios [a]

	1971-1975	Five-year plan 1976-1980	1976-1979 [b]	1976-1979	1976-1980 [b]
Bulgaria	4.5	4.7	5.8	6.0	6.2
Czechoslovakia	5.9	6.9	8.4	8.9	8.9
German Democratic Republic	5.3	5.8	7.4	7.5	7.2
Hungary	5.7	6.1	9.3	9.2	9.6
Poland	3.7	4.7	8.7	11.6	13.1
Romania	3.0	3.7	4.2	4.8	4.8
Soviet Union	5.2	5.6	6.3	6.7	6.8

Source: As for table 1.1.

[a] Ratio of gross capital investment to the increase in net material product.

[b] Data for 1979 and 1980 refer to plan targets.

has not exceeded the planned amount in any country. While in Hungary the volume remained virtually the same as in 1978, in Poland it was considerably reduced (—10 per cent). In the other countries, only modest increases were recorded compared with the previous year. Control over investment spending was, therefore, entirely successful. Data for the 1976-1979 period show that the volume of investment was largely kept within the limits laid down in the current five-year plans. However, judging by results in the implementation of development objectives, it seems that the volume of investment was not large enough to provide the impetus necessary for economic expansion to take place as planned. Pronounced emphasis was laid on increasing the efficiency of investments. It seems that this objective has been too ambitious, better performance in some sectors not having been large enough to reverse trends in global efficiency. It should be borne in mind that in the period under review, development objectives did require considerable changes in the size and structure of the national economies in every country of the region. Investment programmes have called for the expansion and modernization of production capacities in priority sectors, some of them with high capital intensity.[2]

The movement of ICORs confirms that expected improvements in investment efficiency in global terms did not take place. Their level exceeded considerably the ICORs implied by the medium-term and annual plans (see text table). In other words, a given rise in NMP had become more costly in terms of investment resources since it was not accompanied by any over-all rise in investment efficiency of the kind which occurred in some sectors during the period under review. Hence, stagnant or slowly increasing global investment could not generate a steady rate of over-all expansion.

The construction sector is largely influenced by investment policies. In 1979, the growth of construction output in the east European countries settled at rates of around 4 per cent or below. These rates show continuation of a decelerating tendency which started in most countries in earlier years. In the Soviet Union, the growth of construction output in the 1976-1978 period slightly exceeded 2 per cent annually. Similar decelerating trends were reported in the building materials industry, where 1979 growth rates were the lowest since 1975. The completion of investment projects was largely influenced by these trends. As yet, full data for 1979 are not available, but the ratios of fixed assets brought into operation to total gross fixed capital formation in 1978 ranged between 90 and 94 per cent for the three east European countries (Bulgaria, Czechoslovakia and the German Democratic Republic) and the Soviet Union. The other three east European countries (Romania, Poland and Hungary) recorded corresponding ratios of 80-85 per cent. Performance in this respect was below that in the previous year for most countries of the region. Industrial construction followed largely the same pattern; the respective ratios in east European countries lay between 85 and 90 per cent with the exception of Romania (70.4 per cent). Data for the Soviet Union are not available.

(iii) Changes in employment and labour productivity

The labour supply situation did not improve in 1979. Possibilities for mobilizing additional labour from the existing able-bodied population[3] have been completely utilized in previous years, and additions to the labour force in 1978 were largely due to the entry into employment of young people. Even these supplies have declined in recent years, due to the downward trend in population growth which started in the late 1950s and early 1960s in all countries. A slowdown in the rise of the *economically active population* was common throughout the region, and in some countries virtually no rise has been recorded for several years (in Bulgaria and Hungary since 1976). New labour inflows just about offset retirements. Prospects for 1980 and up to 1985, at least do not suggest any notable improvement in this regard.[4]

Data on the economically active population in 1978 are available for all countries.[5] Participation rates (active population as compared with total population) are high everywhere (see text table)—47-48 per cent in Romania, Hungary and Czechoslovakia, close to 49 per cent in Bulgaria and nearly 50 per cent in Poland. In the German Democratic Republic and the Soviet Union, they are over 51 per cent. In 1979, the growth rates of the active population were 0.3 per cent in Romania, 0.4 per cent in Hungary and 0.7 per cent in Czechoslovakia. The other countries did not report, but most probably registered increases below 1 per cent.

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[2] For more detailed analysis of the impact of the priority sectors on investment efficiency, see section on investment in this *Survey* and also in the 1978 *Survey*, part I, chapter 3, sections on general developments and investments.

[3] Able-bodied population refers to male population between 15 and 60 years old and to female population between 15 and 55 years.

[4] In the article "Where reserves are to be sought" Academician Aganbegyan stated that from 1980 onwards the growth in the population able to work will begin to decline sharply in the Soviet Union. In the period 1981-1985, the growth of labour resources is expected to be some 8 million lower than between 1976 and 1980 (*Trud*, 19 January 1980). The corresponding increase in the latter period might be estimated at approximately 10 million people.

[5] They are taken from national statistical sources and, therefore, the statistical definitions and coverages are not completely uniform.

Labour participation rates in 1978

	Thousands	*Per cent of total population*
Bulgaria	4 298	48.87
Czechoslovakia	7 212	47.64
German Democratic Republic	8 621	51.45
Hungary	5 069	47.37
Poland	17 410	49.72
Romania	10 290	47.08
Soviet Union	131 672	50.39
Census data 17/01/79	135 000	51.44

Sources: National statistics.

Some data are available on the relationship between employment and the countries' able-bodied population as a whole. The most recent data refer to Hungary and Romania. In the first country, the participation rate for men was 83.6 per cent in 1978 and 69.4 per cent for women (78.4 per cent if those on maternity and child-care leave are included). The Hungarian Minister of Labour, who reported these data, considers that these rates cannot be further increased.[6] In Romania, the employed population has been estimated at 82 per cent of the country's able-bodied population. Similar or even higher participation rates were reported for Czechoslovakia in earlier years: 82.1 per cent in 1970, and 83.9 per cent in 1975.[7] Another source indicates that in the German Democratic Republic 87 per cent of the able-bodied female population was employed or under full-time education in 1977.[8] The participation rate of employed workers together with students under full-time education was 77 per cent of the able-bodied population in the Soviet Union in 1960, but it reached 91 per cent in 1978.[9]

In some countries of the region, additional labour resources have been sought by stimulating pensioners to work after reaching retirement age. A decree was adopted recently in the Soviet Union with a view to promoting this type of employment. In 1979, there were 47.6 million pensioners in the Soviet Union and two-thirds of them (almost 32 million) were past retirement age. In 1979, 5.5 million pensioners were employed, but most often worked a shorter day.[10]

A recent measure in the German Democratic Republic has increased annual leave by at least three days for every employee. This will reduce the annual fund of working hours by 1.45 per cent, equivalent to approximately 100 thousand workers.

During the first three years of the current plan period, no country in eastern Europe experienced an annual average growth rate of employment exceeding 0.9 per cent. Moreover, as mentioned earlier, employment in Bulgaria and Hungary in 1978 was the same as in 1975 (table 1.2). The biggest change took place in Poland, where employment rose at an average annual rate of 2.2 per cent between 1970 and 1975, and dropped to 0.9 per cent in the period under review. The German Democratic Republic was the only country where a slight acceleration in the growth of employment occurred: an average annual rate of 0.7 per cent between 1976 and 1978, as against 0.5 per cent in the previous quinquennium. A notable slowdown in the growth of employment characterized developments in the Soviet Union. The 1.2 per cent average annual growth rate was the highest in the region, but a great deal below the 1.8 per cent rate attained in the 1971-1975 period.

In sum, labour has been a constraining factor on global economic development. Since the demand for labour cannot be met, increased labour productivity is the only way to maintain stable and dynamic growth. Trends in 1979 showed the same pattern. However in some countries reduced labour demand in 1979 was reported as an outcome of the slowdown in economic activity—particularly in the investment sector.

Changes in the growth rates of *employment in major sectors* of economic activity, as shown in table 1.2, followed largely similar patterns in every country. Apart from Romania, the highest rates of employment growth in all other countries took place in the non-material sphere, which covers the major share of tertiary activities. This tendency was probably unchanged in 1979. The only available information, relating to Czechoslovakia, indicates that employment in the non-material sphere rose by 1.2 per cent, as against 0.4 per cent in the rest of the economy. On the other hand, agricultural employment during this period dropped considerably in all countries. The downward trend was most pronounced in Bulgaria and Romania, where the average annual decline was 3.8 and 4.5 per cent respectively. Industrial employment was on the rise everywhere except in Hungary, where it recorded a further decline of approximately 30,000 workers in 1979. In the same year Poland experienced for the first time a negative rate of industrial employment (—0.5 per cent) and a further decline of 0.3-1.2 per cent is anticipated for 1980.

The most notable changes in the sectoral structure of employment took place in Romania and Bulgaria, due to the sharp drop in the farm labour force during the period 1970-1978 (table 1.3). In Romania, the relative share of agricultural employment was reduced from 49.3 to 32.8 per cent of the total, and in Bulgaria, from 35.8 and 25.2 per cent. In the former country, transferred labour mostly

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[6] F. Trethon, "Recent problems of labour management", *Partelet* (Party Life), November 1979.

[7] T. A. Savranskaya, "Regulation of employment in the Czechoslovak SSR", *EKO*, 1979, No. 9, p. 114.

[8] G. G. Shyutte, "Utilization of the labour potential in the German Democratic Republic", *EKO*, 1979, No. 9, p. 105.

[9] E. Vorinin, "The country's labour potential and its resources", *Sotsialisticheski Trud*, 1979, No. 9, p. 75.

[10] For instance, those in industry worked a 30-hour week with full pay and were entitled to two months' annual leave. The trend is towards shortening the working week and increasing the number of days of leave.

TABLE 1.2

Employment in 1978

(Indices, 1975 = 100)

Country	Total	Material sphere: Total	Material sphere: Excluding agriculture	Non-material sphere	Agriculture	Industry
Bulgaria	99.4	98.2	101.7	106.6	89.1	103.3
Czechoslovakia	102.3	101.8	103.3	103.6	95.5	102.0
German Democratic Republic	102.2	102.0	101.9	105.7	97.5	101.7
Hungary	99.7	98.3	95.6	107.8	94.4	99.1
Poland	102.7	101.7	101.9	110.3	101.1	102.3
Romania	101.4	100.4	111.8	107.2	87.4	110.8
Soviet Union	103.8	102.9	107.0	107.0	94.5	105.7

Source: National statistics.

flowed into industry (the share of which in total employment rose from 30.8 to 42.4 per cent); in the latter country, it was allocated between all non-agricultural activities including those located in the non-material sphere. The share of employment in the non-material sphere in fact rose everywhere, but remained lowest in Romania (12 per cent in 1978) and in Poland (13.4 per cent). The highest shares were in the Soviet Union (22.6 per cent) and the German Democratic Republic (20 per cent). In the German Democratic Republic, industrial employment attained the highest share (42 per cent), which is rather high compared with the industrial market economies.

Trends in sectoral employment have in many cases not developed in accordance with planned requirements: shortages of manpower in some sectors, regions or enterprises, were accompanied by excessive employment in others. According to reports from the labour placement offices in the RSFSR, about 2 per cent of jobs were vacant in 1978. On the other hand, research carried out by institutes in several large cities at enterprise level indicates the existence of quite large reserves of manpower—about 10 per cent of the total labour force.[11] The same source reported on the effects of over-manning at global level. The data, which refer to earlier years, found that workers and office employees totalled 94.1 million in 1971 and 104.1 million in 1975. For those years, the planned level of employment, as calculated by the USSR Gosplan, should have been 92.7 million and 101.6 million employees respectively, which means a surplus of 1.4 million in 1971 and 2.5 million in 1975. It was stated that the same trend has been observed in subsequent years.

A situation similar to that in the RSFSR has been reported in the Byelorussian SSR, where in 1979, though total employment was short of the planned level by 10-11 thousand, data for September indicated that a sample of enterprises of the Republic employed more than 50 thousand workers in excess of established norms.[12]

The phenomenon of over-manning in industrial enterprises has been one of the main issues of labour management in all the countries of the region. In the German Democratic Republic, as mentioned earlier, the share of industry in total employment can be considered as too high. After the reorganization of industrial enterprises and the creation of large combines (*Kombinate*), the 1980 plan anticipates a redeployment of about 20,000 workers within the combines themselves. In Bulgaria, changes in the management of industry were introduced on 30 July 1979; the new provisions include employment limits among the obligatory planning indicators at enterprise level. In Czechoslovakia, policies to restrict excessive employment have focused particularly on labour engaged in administrative activities. Administrative employment was reduced by 10 per cent by 1970, but increased again subsequently. In 1976 it was frozen at the level of 31 December 1974. In 1977, employment limits were introduced into the plans. The 1980 plan envisages a 1 per cent reduction in the number of administrative workers. Hungary and Poland have set more ambitious targets in their national plans. Over the next few years, Hungary envisages cuts of between 5 and 20 per cent in administrative staff. In Poland, it has been agreed that the number of persons employed in administrative activities should be cut by 5 per cent in 1980 on a national scale.

Labour policies in most countries have emphasized the need to *redeploy labour resources*. Almost everywhere there were more vacancies than job seekers. The most illustrative reference is given for Poland: in 1979 about 10,000 people were looking for work on a national level, while available jobs amounted to 210,000 work places.[13] Redeployment policies aim, first of all, to eliminate non-economic places of work and to regroup the workers involved. They refer not only to individual cases but also to those areas and enterprises where profitability is lower than average. Reductions in subsidies and the reform of wholesale prices envisaged in some east European countries should speed up this process. It has been estimated that by transferring labour from inefficient, low productive units into newly built capacities, labour requirements could be covered by as much as 40-50 per cent in Czechoslovakia.

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[11] A. Myasnikov and A. Ananyev, "By skill, not by numbers", *Trud*, 17 July 1979.

[12] Information provided by the head of the directorate of the Byelorussian State Committee for Manpower.

[13] Speech of the First Secretary of the PUWP on 16 November 1979, *Trybuna Ludu*, November 1979.

TABLE 1.3

Employment

(Percentage distribution, total = 100)

Country and period	Material sphere		Non-material sphere	Agriculture forestry	Industry and construction
	Total	Excluding agriculture			
Bulgaria					
1970	86.9	51.1	13.1	35.8	38.8
1975	84.3	56.1	15.7	28.2	41.5
1978	83.5	58.3	16.5	25.2	42.9
Czechoslovakia					
1970	81.5	62.9	18.5	18.6	46.7
1975	80.9	65.3	19.1	15.6	48.3
1978	80.0	65.5	20.0	14.5	48.1
German Democratic Republic					
1970	81.2	68.2	18.8	13.0	49.6
1975	81.4	70.3	18.6	10.1	50.9
1978	81.0	70.4	19.0	10.6	51.1
Hungary					
1970	84.8	58.4	15.2	26.4	43.2
1975	83.1	60.5	16.9	22.6	43.8
1978	81.9	60.2	18.1	21.7	42.8
Poland					
1970	87.2	52.6	12.8	34.6	37.6
1975	86.6	55.8	13.4	30.8	39.8
1978	86.6	55.8	13.4	30.8	39.1
Romania					
1970	89.8	40.5	10.2	49.3	30.8
1975	88.6	50.5	11.4	38.1	38.7
1978	88.0	55.2	12.0	32.8	42.4
Soviet Union					
1970	79.6	54.2	20.4	25.4	37.9
1975	78.3	55.5	21.7	22.8	38.0
1978	77.4	56.5	22.6	20.9	38.5

Source: CMEA Yearbook 1979, pp. 441-443.

The attention paid to reducing manual labour and the share of labour in ancillary industrial activities is also expected to improve the labour situation. For instance, the Soviet 1976-1980 five-year plan incorporates a switch of 2.2-2.5 million people from manual to mechanized and automated labour. By 1980, the share of mechanized labour should attain 65 per cent of industrial employment as against 58 per cent in 1975.[14] But the number of people doing auxiliary jobs in industry accounted for half of all industrial production personnel in 1979.[15] The same source reports that the share of mechanized labour in basic industrial production was 73 per cent, as compared with 29 per cent in auxiliary operations and even lower—22 per cent—in material handling. According to some estimates, a one per cent increase in mechanized labour on the national scale could save approximately 400 thousand workers.

The problem of labour in agriculture, particularly shortages of skilled labour and the rapid deterioration of the age structure, has been another area of policy concern. In the Soviet Union, about 90 per cent of migrants from the countryside are young people with secondary education. While this benefits industry, the effects on the quality of the farm labour force are not favourable. In Poland, the country with the lowest intensity of agricultural migration, almost 1 million out of a total of something more than 3 million private farms are run by people with diminished productive capacity, most often because of advanced age. About 1 million farmers did not finish even primary school. When the new law on agricultural pensions comes into force in July 1980, a considerable increase may be expected in the retirement of older farmers. The 1980 plan provides for the transfer of 80 thousand workers from socialized sectors to service activities and private farming. However, measures were undertaken to speed up the programme of agricultural professional training: during the current five-year plan about half a million agricultural specialists should enter the agricultural labour force.

Labour policies also aimed to strengthen labour discipline and to reduce turnover. The most comprehensive programme in this regard has recently been elaborated in the Soviet Union, and it was approved by the highest

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[14] *Ekonomicheskaya Gazeta*, No. 48, 1978, p. 10.

[15] N. Aitov, "Not just by adding manpower", *Sovetskaya Rossia*, 27 July 1979.

Changes in social labour productivity [a]

(*Annual average percentage change*)

	1971-1975	*Plan 1976-1980*	*1976-1978*	*1976-1979*	*1976-1980*
Bulgaria	7.4	7.7*	6.8	6.6	6.3
Czechoslovakia	4.9	4.5*	3.5	3.2	3.2
German Democratic Republic	5.2	4.9*	3.6	3.5	3.6
Hungary	6.2	5.4-5.7	5.5	4.4	4.2
Poland	7.4	5.9-6.1	4.3	2.7	2.4
Romania	11.0	9.4*-10.4*	8.8	8.3	8.5
Soviet Union	4.1	3.5*	4.1	3.4	3.4

Sources: For 1971-1975 and the Plan 1976-1980, *Economic Survey of Europe in 1976*, part II; for 1976-1978, 1976-1979 and 1976-1980, secretariat estimates based on national statistics, annual plan and plan-fulfilment reports.

Note: The 1980 data refer to released plan targets and shares of social labour productivity in the formation of NMP and to past percentage changes in employment in the material sphere. For the Soviet Union, it is assumed that produced and distributed national incomes will grow at the same rates in 1980.

[a] Ratios of net material product to employment in the material sphere.

political and State organisms at the beginning of 1980.[16] In the course of 1979, all countries of the region introduced new measures in the field of wage management in order to stimulate more efficient use of available labour. Introduction of labour-saving schemes on a large scale has been increasingly stimulated by new regulations on wage and incentive policies.

All measures relating to labour management have had as a final objective the attainment of increases in *social labour productivity*. However, even during the preparation of the current five-year plan, it was admitted that the adverse effects of many factors influencing economic development might not be fully offset, and that a slowdown in social labour productivity growth would need to be allowed for (see text table).

Recent trends indicate that the slowdown has been larger than envisaged. The downward tendency became more pronounced in 1979, and the average annual percentage change for the period 1976-1979 not only fell below the implied medium-term objectives, but also below the averages for the 1976-1978 period. Policies envisaged for 1980 are not expected to reverse this tendency in Bulgaria, Hungary or Poland. If the 1980 planned targets are fulfilled, the tendency will be checked in Czechoslovakia and the Soviet Union, and a slight acceleration may take place in the German Democratic Republic and Romania.

(iv) Changes in material inputs and efficiency

One of the main objectives of policy measures in 1979, as in previous years, was to secure unbroken and timely deliveries of *material inputs*. But shortages of energy and fuel, certain raw materials, especially metals, spare parts and, in some countries, of agricultural supplies were not eliminated and indeed were even more acute than in the previous year. The deterioration in material supplies was a consequence of the domestic production difficulties and cuts in availabilities of deliveries from abroad noted earlier. In the short run, emphasis was placed on measures to stimulate and promote more rational and economic use of all types of material inputs—especially of energy, fuel and metals. Even recently adopted long-term programmes contain provisions relating to the conservation and rational use of energy and power in almost all countries. In some of them, such as the German Democratic Republic, a general programme of economies in all sectors of the national economy has been operating several years already. Poland plans to embark on such a programme in 1980.

Investment programmes are now giving highest priority to the development of domestic resources and the building of energy and raw material production capacities. This is the most important strategic orientation in structural policies, and its implementation should provide a basis for balanced and dynamic growth. Nevertheless, according to many references, these programmes have not progressed sufficiently to reduce the strains in national material balances which have been aggravated by rapidly rising consumption in recent years and by restrictions imposed on supplies originating abroad.

Few references have been made to the effects of policies designed to bring about the rational use of raw materials and energy resources and to stimulate *reductions in material costs* and costs in general. In Bulgaria, it has been reported that material costs were reduced by 1.42 leva for every 100 leva of commodity output in 1979. The total economic effect of this reduction was 550 million leva, an amount equal to 3.4 per cent of NMP in 1978. The plan for 1980 provides for further savings in energy and raw materials but detailed targets have not been announced. In Czechoslovakia, reductions in previous levels of raw material and energy consumption in the period between 1976 and 1979 totalled 1.8 per cent.[17] The 1980 plan has called for further reductions in aggregate consumption of fuel, energy and raw materials, and for a 1 per cent saving of fuel in power generation. Cuts in the consumption of ferrous metals are expected to provide savings of 3 to 3.5 per cent of the annual consumption of metal. The 1980 plan provides for fuel consumption limits and stipulates a reduction of fuel consumption norms for different types of vehicles.[18]

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[16] Decision "On the further strengthening of labour discipline and on reducing labour turnover in the national economy", *Pravda*, 12 January 1980.

[17] Most of the savings took place in 1979, since the reported figure for relative savings between 1976 and 1978 was 0.5 per cent. See *Czechoslovak Economic Digest*, No. 7, August 1979, p. 10. Saving in unit wage cost was 4 per cent in 1979.

In the German Democratic Republic, the consumption of raw materials and energy per unit of output was reduced by an implied rate of 4 per cent in 1979.[19] Between 1976 and 1978, specific consumption of raw materials and intermediate goods per unit of output decreased by an average of 3.1 per cent. The 1980 plan provides for further cuts of 4.5-4.7 per cent. Targets have been set for a reduction in the consumption of energy in industry (—5.0 per cent), of rolled steel in engineering (—6.8 per cent), of cement in construction (—2.0 per cent). Nevertheless, the relative decline in the consumption of raw materials and energy throughout the economy has not changed the share of so-called productive consumption (material inputs) in global social product; this share rose from 60.4 per cent in 1970, to 61.6 per cent in 1975 and 62.1 per cent in 1979.[20]

The recycling of intermediate goods and industrial waste has received considerable attention in the German Democratic Republic. Of 400 specific types of waste, amounting to an estimated 72 million tons annually, some 27 per cent were recycled in 1979. For 1980, the volume of recycled materials is scheduled to increase by 4 per cent as compared with the previous year.

In Hungary, various economy measures were taken in 1978 and 1979. Their global effect was estimated at 2-2.5 billion forints in 1979, or 0.4-0.5 per cent of NMP in 1978. In November 1979, a new programme incorporating significant changes in energy utilization was approved. During the period 1981-1985, the annual rate of growth of energy consumption is to be held below 3 per cent, compared with 4-5 per cent at present. The plan for 1980 foresees a 5 per cent reduction of energy consumption in the State sector. Enterprises are to prepare individual conservation plans, which should save fuel equal to 470 thousand tons of oil in global terms, while in 1979, enterprises were expected to meet their production plans without increasing fuel consumption.

No data on raw materials and energy savings were released for Poland in 1979. In the Government report on the energy situation submitted to the Polish Sejm in October 1979, the situation in the production of electrical energy was qualified as "difficult and complicated". The Government was forced to introduce limits on supplies of electrical power, but a substantial deficit persisted throughout the year. This resulted from disproportions between the existing capacities of power stations and the capacities in operation. During peak periods, the supply to consumers was generated by plant with a rating of 18,000 MW, while total generating capacity was 25,000 MW. Capacity equivalent to some 7,000 MW was thus permanently out of production, partly because of planned repairs and also because of unforeseen breakdowns. For 1980, new limits were introduced in the use of fuel and energy as part of a general programme of economies in all sectors of the economy. Limits were placed on the consumption of coal, coke and electricity, liquid fuels and gas for each enterprise, which will be reviewed quarterly. The plan for 1980 provides for cuts in the material costs of industry and construction which should have a global effect of 23 billion zlotys. Cost reductions in industry are targeted at not less than 0.4 per cent, of which cuts in material costs should amount to —1.2 per cent. In construction, the cost reduction is set at —0.8 per cent.

In Romania, the amount of material cost savings in industry was estimated at 5.2 billion lei in 1979, or around 0.7 per cent of gross industrial output in the previous year. The share of material costs in gross industrial output fell slightly from 68 per cent in 1970 and 1975 to 67.7 per cent in 1979. The 1980 plan calls for a 7 per cent reduction in the consumption of primary energy per unit of national income in order to improve the country's energy deficit. Moreover, a series of measures to reduce oil consumption was enacted in July. At the 12th Congress of the Romanian Communist Party in November 1979, a long-term programme for energy research and development was adopted. The attainment of self-sufficiency in energy by 1990 is one of the major objectives of that programme. Finally, in December, the State Council approved a decree on the recovery and re-utilization of waste raw materials, and plans for their recycling are to be worked out at all administrative levels from the enterprise upwards. The creation of a new industry has been envisaged with a view to recommissioning spare parts, sub-assemblies and products.

There was a very pronounced emphasis on the need to economize raw materials and energy in the Soviet Union in 1979. Developments in supplies of material inputs generated considerable difficulties in the performance of individual production units. Shortages in supplies of major raw materials, such as iron, steel, rolled metals, certain types of non-ferrous metals, mineral fertilizers and some chemical products were reported. Difficulties also arose in the supply of energy during the winter period. Reference has been made to shortages in the supply of spare parts needed to maintain equipment in industrial enterprises and in agriculture (especially tractors). Transport shortcomings contributed a great deal to those difficulties. Many initiatives were taken to improve the use of raw materials and energy by reducing their consumption in relative terms, but it seems that the effects remained rather marginal. Global data relating to the changes in material costs in 1979 have not been released for the economy as a whole.

During the first three years of the current five-year period, a NMP rise of 2.4 billion roubles was reported as a result of decreases in material intensiveness.[21] This amounts to a reduction in material costs equivalent to approximately 0.2 per cent of NMP produced during that period.

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[18] As a result of the increase in petrol prices in August 1979, sales of petrol dropped by 17 per cent between August and November. Petrol consumption in business transport fell by 70 per cent in the first 11 months of 1979, and was expected to fall by a further 20 per cent.

[19] It has been reported that for industrial production under the management of the central ministries, consumption of the main raw materials rose by 1.3 per cent, and commodity production by 5.3 per cent.

[20] *Die Wirtschaft*, No. 12, 1979, p. 22.

[21] D. Shmelev, "To discover and utilize reserves more fully", *Planovoe Khozyaistvo*, No. 1, 1980, p. 43.

Soviet Union: changes in costs per unit of industrial commodity production

(Kopecks per rouble of output)

	1975	*1976*	*1977*	*1978*	*1975-1978*
In current prices	0.8	0.9	0.2	−0.1	1.8
In prices comparable with the preceding year	−0.7	0.1	−0.3	−0.4	−1.3

Source: Narodnoe Khozyaistvo SSSR v 1978 g, Moscow 1979, p. 136.

Data on changes in industrial profitability may provide some indication on trends in 1979 and planned policies for 1980.[22] In 1979, industrial profitability rose by 1 per cent as compared with the previous year, while industrial output went up by 3.4 per cent. This implies a relative rise in total costs—to 88.1 per cent of gross output as compared with 87.8 per cent in 1978—and also in material costs.[23] The 1980 plan called for a 9.1 per cent rise in industrial profitability as against a 5.7 per cent target rate for gross output. This implies a planned rise in the rate of profitability (to 12.3 per cent of gross output as against 11.9 per cent in 1979), and a relative decrease in total costs of 0.4 percentage points (to an 87.7 percentage share). Additional profit, totalling about 2 billion roubles for the whole economy (equivalent to 1.7 per cent of profits in 1979), has been planned as a result of further savings in material resources. Other statistical data for the period 1975-1978 show changes in costs per rouble of industrial commodity production (see text table above).

Continuous increases during that period were recorded in the fuel industry (where the cumulative increase was 4.6 per cent), ferrous metallurgy (3 per cent), building materials (2.1 per cent) and the timber and paper industry (2.9 per cent). Most probably these tendencies continued in 1979.

In the report on policy orientations for 1980 submitted to the session of the Central Committee of the CPSU held in November 1979, the Secretary General, having outlined the progress achieved in developing the economy, referred to difficulties in the performance of the metallurgy and mechanical engineering, agriculture and transport sectors related to problems of material supply, notably to the size and regularity of deliveries.[24] It was decided that a long-term comprehensive programme for the development of transport should be elaborated. A special commission was set up to determine effective ways of solving the energy problem. A new policy approach was designed for metallurgy and mechanical engineering. As far as agriculture is concerned, a long-term programme for agricultural supplies was elaborated in July 1978 and is already in operation.

No reference was made to shortages or difficulties in deliveries in *agricultural supplies* in the course of 1979. Crop production in 1978 was excellent by historical standards in all countries of the region and grains and feedstuffs were imported in quantities large enough to make good insufficiencies in domestic supplies, especially in relation to the livestock sector. However, prospects for 1980 do not look favourable. First of all, a notable drop in crop production, and an even larger fall in output of grain, was recorded in a majority of countries in 1979. Increased imports of grain will therefore be needed in Czechoslovakia, the German Democratic Republic and, in particular, in Poland and the Soviet Union. This will entail additional pressures on hard-currency resources and on foreign credits. For trade and development policies in general, the consequent intensification of these pressures will certainly not favour the implementation of planned targets. Moreover, recent developments in the world political situation have made the import of grains from western countries uncertain, at least as far as the Soviet Union is concerned.

As mentioned earlier, no systematic data or references are available for assessing the global effects of measures introduced to reduce raw materials and energy consumption. One possible method of estimating trends in this regard is to compare changes in the relationship between NMP and gross social product over time. When NMP is expressed as a percentage share of gross social product, a rise in the share implies a *reduction in material costs*.[25] Data in the text table on the next page show index numbers of changes in the share of NMP for the whole economy, and for net and gross industrial production, for selected bench-mark years.[26]

The ratios relating to the economy as a whole are either virtually constant or show some downward trend in all countries but Romania. In that country, an increase in the share of NMP was recorded during the whole period between 1970 and 1978. One cannot escape the impression that during this period policies to restrain the rise in material costs were successful, and their level per unit of social output remained approximately constant in all countries. However, they did not succeed in bringing down materials consumption to the extent of reducing material costs per unit of social output. In industrial production, the pattern varied between countries. A

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[22] Ratio of profits to the value of productive fixed assets and working capital in current prices.

[23] The relative share of material costs in total cost, including amortization was 80.4 per cent, and excluding amortization 73.3 per cent in 1978. *Narodnoe Khozyaistvo SSSR v 1978 g*, Moscow, 1979, p. 137.

[24] *Pravda*, 28 November 1979.

[25] Material costs, in fact, include amortization. Since this item does not change markedly in relative terms, however, changes in the share reflect largely the dynamics of material inputs, notably raw materials and fuel and power, where notable shifts can occur in the short term.

[26] Annual fluctuations in agricultural production and also the price structure of agricultural products in most countries do not allow even a rough estimate of these trends in agriculture. It is self-evident that in the years when a declihe in crop production has been recorded, it should lead to a considerable decrease in the ratio.

Changes in the ratio of net material product to gross social product
(Indices: 1968-1972 = 100)

	Total economy			Industrial production		
	1970	*1975*	*1978*	*1970*	*1975*	*1978*
Bulgaria	100.0	100.2	99.8	100.5	102.2	114.4
Czechoslovakia	99.8	99.8	98.5	101.0	98.1	94.1
German Democratic Republic	99.9	97.3	96.1	102.5	97.9	97.5
Hungary	100.0	100.4	99.4	99.7	105.2	106.7
Poland	98.6	97.1	94.9	99.4	100.9	99.3
Romania	99.2	102.6	103.8	99.3	104.7	101.2
Soviet Union	100.7	97.5	98.7	100.4	102.1	103.9

Source: As for table 1.1.

Note: Data are not completely comparable between countries because of differences in coverage of the two macro-economic aggregates and in particular of differences in the definition of material costs.

decrease in the share of material costs was recorded in Bulgaria (very pronounced after 1975), Hungary and the Soviet Union. The other four countries experienced a relative rise, which in the case of Romania occurred only in the later period (see also charts 1.2 and 3.2).

In all countries of the region, *fixed assets* have been the most dynamic factor in economic development during the 1970s. It can be seen from table 1.4 that fixed assets in the material sphere rose more rapidly everywhere than for the total economy, which reflects the fact that the dominant share of resources has been allocated for investment in the material production sphere. A high degree of stability in the growth of fixed assets as a whole and of that part in their total allocated to the material sphere is common to all countries of the region (see chart 1.1). This tendency was noted already in last year's *Survey*, and developments in 1978, and most probably in 1979, were similar. Trends relating to fixed assets seem to be of a longer-term character and have not been disturbed by fluctuations in national production or in the supplies of material inputs. They may be influenced to a great degree by abrupt changes in the completion of investment projects or to the policy related to the write-off and replacement of worn out and technologically outdated assets. No reference has been made to such changes at over-all policy level. The age structure of fixed assets may have improved in recent years, the share of assets less than five years old having been on the rise due to intensive investment activity in all countries up to the middle of the decade and in some cases beyond.

As a consequence of the slowdown in NMP and of continuously rising fixed assets, capital efficiency (the ratio of NMP to fixed assets) has declined. In chart 1.2, this tendency is represented by upward trends in capital-output ratios (COR, the inverse of capital efficiency) for the whole economy and for the material sphere as well. After 1976, the rapidly increasing indices show a worsening in capital efficiency in all countries of the region with the exception of, the German Democratic Republic and Hungary. In both countries a slight improvement has been recorded in relation to the whole economy, though capital efficiency in the material sphere alone deteriorated somewhat. It is most likely that in 1979 a downward tendency persisted in all countries of the region including the German Democratic Republic and Hungary. No detailed reference has been made as to the likely effect

TABLE 1.4

Changes in NMP and stocks of fixed assets
(Indices; average for 1968-1972 = 100)

Country and period	*NMP*	*Fixed assets*	
		Total	*Material sphere*
Bulgaria			
1976	155.0	157.8	167.5
1977	164.8	171.9	181.7
1978	174.0	185.4	197.5
Czechoslovakia			
1976	137.3	136.4	140.0
1977	143.1	144.3	149.0
1978	149.0	152.1	158.1
German Democratic Republic			
1976	134.8	128.7	139.9
1977	141.9	134.2	147.6
1978	146.9	140.1	155.6
Hungary			
1976	138.8	139.7	154.3
1977	149.9	148.2	165.2
1978	155.7	156.6	173.3
Poland			
1976	165.4	141.5	160.2
1977	173.7	152.1	175.9
1978	178.9	163.1	191.9
Romania			
1976	182.1	172.3	187.6
1977	198.5	189.1	205.4
1978	213.2	204.6	227.4
Soviet Union			
1976	141.0	156.0	162.6
1977	147.3	166.8	175.4
1978	154.4	178.5	188.9

Source: National statistics.

of future policies to reverse these trends and to improve capital efficiency, with the sole exception of Romania: the efficiency of fixed assets in Romanian industry is planned to attain 1,200 lei of output per 1,000 lei of fixed assets (COR equals 0.83) in 1980 and 1,400 to 1,500 lei by 1985 (COR between 0.67 and 0.71).[27]

Capital intensity—the indicator relating fixed assets to employment in the material sphere—shows steep increases. Its movement in recent years exceeded the rise in social labour productivity everywhere in the region (see text table below).

Changes in the ratio of stocks of fixed assets to employment (A) and of net material product to employment (B) in the material sphere in 1978

(*Indices, 1968-1972 = 100*)

	A	*B*
Bulgaria	198.9	174.9
Czechoslovakia	148.2	139.6
German Democratic Republic	151.7	143.2
Hungary	183.4	156.7
Poland	170.0	158.5
Romania	223.6	209.7
Soviet Union	171.4	140.1

Source: National statistics.

These relative movements imply not only steeply rising fixed assets per employee, but also rising capital costs per unit of output. The impact of other, non-capital "residual" factors contributing to the rise of labour productivity has not been large enough to compensate for declining capital efficiency. Thus, the divergence between the trends in capital intensity and labour productivity has widened as a consequence of the less than proportionate effect of increasing fixed assets on economic efficiency. All in all, these movements suggest a kind of factor-extensive growth based not on a rise in labour intensity but on increases in capital intensity. Recent trends in investment expenditures are the best indicator of the limits of this type of economic growth. The stock of fixed assets cannot be enlarged enough to maintain the relative increase of labour productivity and of economic activity in general at the rates attained in the past.

It should be borne in mind that the rise in fixed assets should also involve an improvement in the technological quality of the capital stock as a whole. Nevertheless, it appears that the actual effects of improved "embodied technology" have remained below that which might be expected, given the assumption of higher potential efficiency of new fixed assets in relation to the existing stock. The role of non-investment factors in technological progress (innovations in know-how and in management, for instance), which are of decisive importance in activating the potential capacities of fixed assets, does not seem to be large enough. This appears to be a principal reason for the fact that economic development, as shown above, has become more costly in terms of investment requirements.

Policies to raise economic efficiency have been primarily oriented to promote and stimulate technological progress, in a manner which enhances the role of residual factors and accommodates them to the technical features of fixed assets. Success in this respect enables gains in labour productivity to be achieved at a lower level of capital intensity and consequently provides a basis for dynamic growth. Nevertheless, constraints on the implementation of such technological policies have been too tight to prevent any reversal of trends in capital intensity and labour productivity growth.

(v) Policies promoting technical progress

As in previous years, measures to promote technical progress held a prominent place in development policies in 1979. Most often, they were related to activities started in the preceding years, but the scope of innovative actions was broader in the year under review. Increasing attention was paid to the co-ordination of different components of the technical complex and to more rapid implementation of achieved results. Therefore, changes in the management and planning of technical progress were introduced in most countries in the course of 1979.

Few data are available on the effects of technical innovations on the national economy as a whole or on economic performance in major sectors. In the German Democratic Republic, for instance, the application of science and technology contributed 90 per cent of the increase in labour productivity as compared with 55 per cent in 1975 according to one recent reference.[28] In most countries, these effects were not considered satisfactory: lagging performance in the technical progress component of improved economic efficiency was frequently referred to as a main factor in the slowdown of economic expansion in 1979. Since other factors, such as the supply of human and material inputs are largely limited, stable and dynamic economic growth can only be sustained by increasing the efficiency with which these factors are used, which, in turn, directly depends on the successful application of progressive technologies.[29] Thus, the main orientation of technical policies approved in previous years and also of those adopted in the annual plans for 1979 remains unchanged. The plans for 1980 envisage the continuation of largely identical policies.

It seems that past experience in the organization, management and planning of technical progress has demonstrated in the first instance that the pace of advance has not been fast enough, and that the level attained has lagged in relation to the needs of economic development in rapidly changing conditions. Hence, the insistence on accelerating technical progress has become more pronounced. Moreover, it has been evident that policies and measures promoting technical progress as a whole and in all its individual aspects cannot increase its efficiency to the level needed to maintain dynamic growth unless a *global orientation of a long-term character* has been defined. Thus, in recent years, increased concern about the global problems of technological progress in a long-term perspective has arisen in all countries of the region. In Bulgaria, the session of the Central Committee of the Bulgarian Communist Party in July 1978 dealt with the acceleration of some strategic trends in scientific and technological progress in that country. In Czechoslovakia, the Federal Parliament, at its October 1978 session, approved the State technical development plan for 1979 after having reviewed the problems of scientific and technical progress. In the German Democratic Republic, a State plan for socialist rationalization for 1979 was adopted for the first time. In both countries, the change in the system of planning by singling out technical progress into a specific plan underlines the need for a complex approach in treating the issue. In October 1978, the Polish Sejm adopted a programme for the further strengthening of the role of science in the economic and social development of that country. More recently, in November 1979, the 12th Congress of the Romanian Communist Party approved the final version of a programme for scientific research, technological development and technical innovation for 1981-1990, and the main guidelines until 2000. At the same time, a long-term programme and guidelines for research and development in energy were adopted. It was reported in October 1979 that in the Soviet Union, elaboration of a complex programme for scientific and technical progress up to 2000 was in its final stage.[30] The basic form of planning the development of science and technology has been the five-year plan following recent changes in the system of national planning. At the level of the national economy the medium-term plan will provide primarily for a solution of strategically important scientific-technical problems.

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[27] Gh. Oheanu and H. Pincas, "Efficiency of fixed assets", *Revista económica*, 16 March 1979, No. 11, p. 3.

[28] Report of G. Mittag at the Session of the People's Chamber of the German Democratic Republic, *Neues Deutschland*, 22 December 1979.

[29] This type of thinking has been accepted almost as an economic axiom and has provided a basic policy option for global development strategies in all countries of the region. For instance, in Czechoslovakia the resolution on economic development in 1980 adopted at the 14th session of the Central Committee of the Communist Party of Czechoslovakia in December reads: "the fundamental method of increasing efficiency is by accelerating and increasing scientific-technological progress".

The choice of major policy orientations in research and technical innovation has been determined, in the first instance, by the options chosen for economic and social development in each country. Both research and innovation require a long-term horizon. Work on long-term perspectives in these fields has been very intensive in recent years and has been linked with the preparation of global policy orientations for the 1980s and, in a more detailed form, for the period 1981-1985. Thus, it can be expected that in the course of 1980, work will be terminated in every country for the period up to 1990 and in some areas up to the end of the century. As mentioned earlier, Romania adopted such programmes in November 1979.

This complex and goal-oriented approach to technical progress will have, and has already had, a decisive impact not only on the choice of strategic options but also on the organization *of management*, training and planning in this field. The organization of scientific-production associations has been under way in all countries. In the German Democratic Republic, the formation of combines (*Kombinate*) in industry has been making good progress. By 1980, 129 of them will be in operation in industry and construction; they will account for 88 per cent of the industrial production of the German Democratic Republic and will concentrate 90 per cent of research and technological development capacity.[31] In the Soviet Union, a decree was passed on the formation of a single fund for financing the development of science and technology at the level of branch ministries.[32] Increasing attention has been paid to the programme orientation of the Academy of Sciences and scientific research institutes. In 1980 the transition to the cost accounting system will be completed in research, design, development and technological organizations, experimental organizations, and in the scientific production and production associations (enterprises) of industrial ministries.[33]

The choice of policy orientation implies an option between domestically generated and imported scientific and technical innovations. Imported technology has certainly helped in speeding up the process of *technological reconstruction* of the national economies of the region, but by far the greater part of this reconstruction was based on the region's own resources. From the point of view of economic development, this work is linked first of all with investment activities, with technological innovations in the organization of production processes, and with changes in the assortment of goods included in production programmes. Investment priorities indicate also the main sectors where the introduction of new machines and technologies has been followed through most intensively. In most countries, a significant share of investment resources has been allocated for reconstruction, re-equipment, rationalization or modernization of existing capacities alone. The provisions of the Hungarian investment programme, which specifies that no large new investment projects will be started in 1980, indicate that virtually all resources are to be allocated for the improvement of productive capacities in existing enterprises. In Bulgaria, this part of investment in the material sphere amounted to 67.4 per cent in 1979 and the plan for 1980 sets a target of over 70 per cent. In the Soviet Union, the share of investment designed for technical reconstruction and re-equipment alone amounted to 20 billion roubles which represents an estimated 23 per cent of investment in the material sphere in 1979. The sum of 18.4 billion roubles has been set aside under the 1980 Plan for the same purpose. In the German Democratic Republic, the share of so-called rationalization investment in total branch investment reached more than 75 per cent in the engineering industry and more than 70 per cent in the light and food-processing industries in 1979. The trend everywhere has been towards increasing the share of investment in equipment and machinery.

The allocation of investment resources by major economic sectors and especially by industrial branches indicates the main priorities in technical reconstruction. For instance, a relatively high share of the investment allocated to agriculture and the food-processing industry in several countries of the region is destined to speed up the reconstruction process. If one takes into account all the specific recipient areas for priority attention in this respect—mechanization, agro-chemicals, electrification, breeding programmes, land improvement and the like—the intensity and comprehensiveness of technological reconstruction in agriculture is of impressive scope.

The most dynamic shifts have, however, taken place in the structure of the industrial branches. From the point of technological progress, engineering has occupied the central place. In all countries, the reconstruction of engineering has been under way for some years. The major objective has been to promote the output of technologically up-to-date equipment, machinery, installations, and other investment goods produced by the engineering industries. (For detailed analysis of the consequent shifts in allocation patterns, see sections on industry and investment.) Information referring to the long-term development programmes for the next decade suggests that the reconstruction of engineering and industry in general will continue, and its major orientations will remain unchanged. As yet, only Romania has approved a long-term development programme with a strategic orientation completely in line with the description given above.

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[30] V. Ivanchenko and A. Sobrovin, "Management of scientific-technical progress", *Voprosy ekonomiki*, No. 10, 1979, p. 127.

[31] *Einheit*, No. 9-10, 1979, p. 938.

[32] *Ekonomicheskaya Gazeta*, No. 39, 1979.

[33] *Pravda*, 29 July 1979.

The outlines of the Soviet development programme over the same period have been reported recently.[34] They envisage radical shifts in capital investments and in the utilization of investment funds in favour of the following top priority sectors: electronics (including data processing), computers (with a view to introducing automation of computer technology on a larger scale throughout the national economy), energy (with emphasis on nuclear energy, coal liquefaction and intensified research in nuclear fusion), new applications of various advanced technologies such as lasers and powder metallurgy, and the development of new types of catalysts. In agriculture, special attention will be given to the development of new plant hybrids, the development of new breeds of livestock, up-to-date microbiological techniques for the production of proteins and new types of farm machines.

The orientation of technological innovation in eastern Europe follows a similar pattern of priorities. Everywhere electronics and energy-related technologies have been accorded special emphasis. Depending on the main line of specialization in electronics in individual countries, emphasis has been placed variously on computer and data-processing equipment, industrial robots, semiconductor equipment, micro-processors, and instruments and equipment for automation. For instance, in Czechoslovakia, a new Federal Ministry for the Electrotechnical Industry has been established, which started work at the beginning of 1980. A target-oriented long-term programme for the development of the electronic industry up to 1990 was approved in 1979 in that country.

The *international component* of technical progress has become significant; scientific and technical co-operation between the countries of the region has been very much intensified during the current quinquennium. The institutional framework of international economic relations, especially developments within the CMEA framework, have added a new dimension to the promotion of technology. The choice of technical innovation will henceforth be considered in relation not only to the domestic requirements of economic development but also to the prospects for exporting technology goods. Given the increasing importance of the latter aspect, the criteria for allocating resources (human, material, financial) depend to a great extent on decisions which clearly cannot be separated from over-all strategy with regard to the sectors and stages of the scientific-technical cycle upon which available resources should be concentrated.

Increasing activity in scientific and technological co-operation has been noted between the countries of the region since 1971, the year when the complex programme for economic integration within the CMEA framework was adopted. Since that time, about 90 multilateral co-operation agreements have been signed and 56 co-ordinating centres created. Some of these contracts were linked with the CMEA international associations such as Interatominstrument, Interelectro, Interatomenergo, Intertextilmash.[35] While between 1964 and 1970 about 1,500 projects of a theoretical and applied research character were finalized for scientific and technical co-operation between CMEA countries, they amounted to more than 14 thousand in the period 1971-1978. A co-ordinated programme for multilateral measures promoting the economic integration of the region for the period 1976-1980 was worked out. It covers 17 priority technological problem areas. According to the source, about 400 scientific research projects were already terminated in 1976 and 1977. They provided designs for new equipment and machinery, products and technologies. In more recent years, scientific and technical co-operation was given the most important place in the long-term target-oriented development programmes adopted at the CMEA sessions in 1978 and 1979. At present, the highest priority has been placed on technological innovation in fuel and energy saving, where a special programme of scientific and technical co-operation has been in effect since 1976.[36]

Other fields of co-operation have involved technical innovations in the complex utilization of timber, in metallurgy, in the development of welding technology and in the methods for protecting metal against corrosion. Problems of the protection of the environment and of rational use of natural resources have been co-ordinated within a special programme in operation up to 1980. The programme specifies 160 major topics, classified into 12 major orientations. In the production of computers 14 models of unified systems of computers and mini-computers have been designed. Special attention has been paid to the creation of an international system of scientific and technical information. Up to now 19 branch and seven specialized international information systems have been put into operation. They are linked with more than 170 national information institutions in the CMEA countries. With respect to the further development of multilateral co-operation, emphasis has been placed on the harmonization of links between scientific-technical and economic co-operation and between multilateral and bilateral co-operation.

Transfer of technological innovations between the region and *western countries*, has to a great extent been linked with trade in machinery and equipment. Occasionally, during the 1970s deliveries of complete plants (turnkey projects) have taken place, particularly in chemicals, steel and the motor industries. New forms of transfer have become more important in recent years. These include, first of all, intergovernmental scientific and technical agreements, which provide a general framework for specific agreements or transactions. By 1978 about 250 of these had been concluded and most of them were of a long-term character (10-15 years). Industrial co-operation agreements, in most cases, have been related to co-production and specialization. The great majority were concluded in the engineering and chemical industries. For instance, in 1978 the Hunico-op foreign trade office for co-operation in the engineering industry concluded contracts between 115 Hungarian and 90 foreign enterprises, and prepared others for signing in 1979. It has been reported also that the main objective was to improve the structure of production, modernize technology and increase exports.

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[34] V. Kotel'nikov, *Ekonomicheskaya Gazeta*, No. 35, 1979.

[35] I. Savelova, "The CMEA member countries in world technology trade" *Vneshnaya Torgovlya*, No. 1, 1980, p. 30.

[36] The most impressive are the construction of the world's largest thermo-nuclear installation "Tokamak-10" and of an industrial experimental nuclear power station using technology based on high speed neutrons. An outstanding achievement in research on direct transformation of energy was the construction of an experimental industrial installation based on the MHD generator of 25 MW capacity. For the information in this paragraph see D. Gellen, "On the paths of scientific-technical progress", *Ekonomicheskaya Gazeta*, No. 27, 1979.

Trade in licences, another form of technology transfer, has become more significant since 1978. In Hungary, the purchase of licences almost doubled in value terms between 1975 and 1978.[37] Two-thirds of the total value of licences purchased were concerned with the engineering industry. It is reported that this trend has accelerated in 1979. In Hungary increases in licence purchases may bring the share of production under licence to about 10 per cent of industrial output. At the end of 1978 a new decree was passed which increased the powers of the National Technical Development Council.[38]

In Bulgaria, over 50 million foreign currency leva were allocated in the State budget for 1979 for the purchase of licences from the west. In Czechoslovakia, purchases of licences from the west have also increased since 1978. It has been estimated that the share of production under licence amounted to 4.7 per cent of total industrial production. Inputs of machinery and equipment needed to start production under licence has exceeded by several times the value of the licence fees themselves. In Poland, licences purchased amounted to more than $600 million during the 1970s. Production under licence has been close to 5 per cent of industrial output in 1978, a figure similar to that reported in Czechoslovakia.[39] It seems, however, that less licences were sought in 1979, and that emphasis was placed on speeding up the use of already acquired licences. The restrictions in import transactions imposed for balance-of-payments' reasons also affected the purchase of licences. As in Czechoslovakia, the import cost of equipment related to licence acquisitions exceeded the value of the licence fees in Poland; indeed, the licences themselves accounted for only 8 per cent of total expenditure in this connexion, purchases of the associated imported machinery accounting for 92 per cent of the aggregate value of such transactions. This may be one reason for the fact that of licences bought in 1978, 35 per cent were not brought into production as scheduled. On the other hand, 25 per cent of purchased licences were found to have had a considerably smaller economic effect than anticipated. These facts were reported in 1979 during the session of the commissions of the Polish Sejm which dealt with the issue of licences. Moreover, it has been estimated that 80 per cent of all products manufactured under licence contained imported components to a value of half the total costs of the products.[40]

In the Soviet Union, licences purchased from the west accounted for some 5 per cent of over-all imports of western goods. A western source considers this figure as roughly in line with the world-wide ratio of technology-to-merchandise trade.[41] Difficulties in assimilating and diffusing imported technology in the Soviet Union were reported. In a recent review of the experience of a United Kingdom company, lead times required for the acquisition, installation and bringing into operation of imported machinery in the case of 26 turnkey projects in the Soviet Union was three and a half to four years longer than compared with western Europe.[42] The cost of the assimilation process was increased by the significant extra expenses involved in recruiting and training qualified manpower, expensive repairs, difficulties in providing spare parts and also of certain material inputs which are not produced domestically and which must be imported and paid for in foreign currency.[43] All this points to a dilemma with regard to the efficiency of technology transfer, and in particular of licences, in relation to the development of the national economy.[44] The new situation in world politics and the recent decision of the United States to impose an embargo on high-technology exports to the Soviet Union will most probably entail a reassessment of policies relating to technological transfer. Clearly, however, the underlying problem is not confined only to the Soviet economy.

(vi) Developments in foreign trade and over-all economic growth

Efforts to redress foreign trade imbalances particularly with the western industrialized market economies (east-west trade), had a decisive impact on trade policies in 1979. This policy objective is not a novelty but, as export and import trends in the preceding year did not follow the planned pattern, policies and objectives were more exacting in this regard. In 1978, the trade deficit of the east European countries taken together rose only slightly (by $0.3 billion) in global trade. However, the deficit on trade with western countries rose by considerably more—by almost $ 1.3 billion, an increase of over 40 per cent as against 1977. In the Soviet Union, the surplus on global trade in 1978 fell back by almost $ 2.7 billion. Policies in 1979 were designed to act upon trade deficits by promoting exports and applying more selective import policies. Preliminary data on global trade, and returns for the first nine months in trade with western countries, suggest that the policy departures have had a marked effect on the trade of both eastern Europe and the Soviet Union (see text table).

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[37]

Hungary: licence purchases in million forints

	National economy		*Engineering*	
	Total	of which: *non-socialist countries*	*Total*	of which: *non-socialist countries*
1975	398.6	351.4	264.9	250.9
1978	732.4	701.9	464.2	451.7

Source: Népszabgdság, 8 August 1979.

[38] Decree of the Council of Ministers, No. 1045, 30 December 1978.

[39] *Trybuna Ludu*, 22 March 1979.

[40] *Trybuna Ludu*, 20 February 1979.

[41] *Business Eastern Europe*, No. 42, 19 October 1979.

[42] *Business Eastern Europe*, No. 3, 18 January 1980.

[43] *Voprosy Ekonomiki*, No. 4, 1979, pp. 92-93.

[44] The limited success of the intensive and large-scale efforts to purchase technology to bring about the expected results during this decade, has recently been the subject of discussion in the east European countries.

Trade balances
(Million US dollars)

	Global trade		*Trade with the industrialized market economies*	
	Eastern Europe	*Soviet Union*	*Eastern Europe*	*Soviet Union*
1977..	−6 237	4 239	−3 087	−1 790
1978..	−6 527	1 569	−4 350	−2 278
1979..	−5 000	5 200	−2 466 [a]	−329 [a]

Source: As for table 6.1.

[a] Nine months.

Among the east European countries, only Romania recorded an increase in its trade deficit, both in global and also, most likely, in east-west trade. Hungary and Poland cut down their deficits in global trade considerably (to 35 and less than 60 per cent respectively of their levels in 1978), but they also recorded the lowest growth rates of NMP. (For detailed analysis see section on foreign trade.)

Considerable reduction in the trade deficits led to a relative decline in resources available for final domestic consumption, not only at global level but even more pronouncedly at sectoral levels. This hindered the normal operation of those production sectors and industrial branches which are most dependent on imported inputs which could not be replaced, at least not in the short run, by domestically produced substitutes. The consequent disruption of supply has probably generated new imbalances and disproportions, and exerted a negative influence on the economic performance of the larger production complexes and even on the national economy as a whole. As far as capital goods (especially machinery and equipment) and licences are concerned, import policies certainly slowed down the pace of technological innovation. Hence, the role of the foreign trade element in promoting economic growth has been weakened to a great degree by such trade policies, while the trends in the trade flows themselves seriously restricted the full operation of available production capacities in some sectors and countries. Account must also be taken of price increases in foreign trade. For the east European countries, a deterioration in the terms of trade has aggravated the supply situation at home, since in volume terms relatively less goods were imported and more were exported.

Extensive imports of grain by some east European countries and the Soviet Union has led to a reallocation of already limited financial resources or to increased foreign indebtedness. A large part of the Soviet trade deficit with western countries is accounted for by the import of grain originating in countries outside western Europe. The Soviet Union has, in fact, recorded an increasing surplus in trade with western Europe since 1976. (See text table below.)

Soviet trade balances with western Europe
(Million US dollars)

1976	*1977*	*1978*	*1979 (nine months)*
334	562	1 122	1 845

Source: As for table 6.1.

Developments in the *financing of trade* with western countries were probably of decisive importance for the countries of the region in formulating the trade policies described above.[45] The east-west balances of trade and payments have changed considerably compared with the early 1970s. In 1973 and 1974, the aggregate deficit of eastern Europe and the Soviet Union on current account amounted to an estimated $2.7 and $3.4 billion respectively and included modest financial flows related to the service of east European and Soviet foreign debt (interest and repayments). But in 1975 the deficit jumped to $8.8 billion and the importance of debt service payments became bigger in relation to total flows. The management of trade finance came to the fore and was given first rank significance in the countries' global economic strategies. In subsequent years, growth of the over-all deficit was cut back by reductions in annual trade deficits, but, at the same time, the net service deficit was rising steeply. In 1978 this tendency was reversed as eastern policies towards imports were relaxed somewhat. But more restrictive policies had to be introduced in 1979; they reduced the deficit on current account to $5.2 billion while the deficit on merchandise trade fell to its lowest level since 1975 (a decrease of almost 30 per cent as against 1978). On the other hand, the deficit in net services reached its highest figure—almost three times as big as in 1975—reflecting largely the increased financial commitments needed to service foreign debt. In such a qualitatively new economic situation, foreign economic relations and especially foreign trade, could not and did not remain unchanged compared with the preceding quinquennium. While in the earlier period foreign trade flows on a much smaller scale promoted to a greater or lesser degree the rates of over-all economic expansion and helped to build up production capacities which depended exclusively on imported supplies in most countries, the pattern of relationships after 1975 was reversed.[46] Policies to redress imbalances in financial and trade flows have become more demanding in terms of resources, not only because of the enlarged scale of foreign transactions, but also because of continuously increasing foreign debt. The increase in the region's economic potential has not been sufficient to generate resource outflows on the scale required without some slackening of over-all economic expansion. Such tendencies have been apparent in all countries of the region in the course of 1979.

(vii) Trends in the allocation of resources for domestic use

Trade trends resulting from policies to restructure trade imbalances have, therefore, led to a pronounced fall in the

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[45] Complete data on financial and payments flows are not available. The ECE secretariat has produced an estimated balance of payments of the industrial market economies with eastern Europe and the Soviet Union (table 6.7). The data used in the analysis do not include Japan.

[46] In a lecture delivered in Vienna, the general director of the Hungarian Trade Chamber reported on the dependence between the growth of NMP and imports from the west. He stated that an increase of 3 to 4 per cent in NMP would require a 4.2 to 5.6 per cent growth rate in imports from the west into Hungary. For an increase of 5 to 6 per cent in NMP, the required growth rate of imports would be 10-12 per cent, *Neue Zürcher Zeitung*, 18 December 1979. In 1979, Hungary recorded a decline of 5 per cent in imports on the dollar account.

TABLE 1.5

Changes in distributed net material product

(Annual percentage change)

Country and period	NMP distributed	Consumption [a]			Net capital formation		
		Total	Personal	Social	Total	Net fixed capital formation	Changes in stocks
Bulgaria							
1976	0.7	6.4	6.5	6.1	−11.0	−14.2	−3.2
1977	2.2	5.9	6.7	4.2	−7.0	−3.8	−13.7
1978	5.5	5.2	5.4	4.8	−7.9	5.0	−38.4
1979	3.2*	..	..	..	..	..	..
Czechoslovakia							
1976	3.1	3.4	2.8	4.9	1.7	2.5	−2.4
1977	1.6	3.6	2.8	6.1	−4.5	9.1	−56.1
1978	2.7	3.4	3.6	3.0	0.5	1.1	−2.7
1979	..	..	0.5*	4.4*	..	..	..
Plan 1980	2.2	..	..	..	..	..	..
German Democratic Republic							
1976	5.7	4.8	4.3	7.3	8.8	6.3	25.1
1977	4.8	4.7	4.4	6.5	5.0	4.5	7.8
1978	1.4	3.5	3.1	3.5	−4.5	−2.0	−32.8
1979	..	..	..	..	..	..	..
Hungary							[b]
1976	1.2	2.1	1.6	5.1	−1.4	−12.7	80.3
1977	6.2	4.6	4.7	3.7	11.1	−0.1	150.4
1978	10.0	4.9	3.6	13.3	23.8	10.5	167.9
Plan 1979	−1.0	2.5-3.0	..	..	−8.0*	−5.0*	−15.0*
1979	−6.0	2.0*	2.5-3.0	1.5*	−25.0*	−11.0*	−35.0*
Plan 1980	−1.0	1.0-1.5	..	..	−4.0*	−(2.5-3.0)*	−6.0*
Plan 1976-1980	4.2-4.6	3.9-4.2	..	..	5.0-5.5*	..	..
Poland							
1976	7.0	8.9	8.7	9.8	3.7	0.7	16.5
1977	2.7	6.8	6.6	7.8	−5.3	4.3	−40.0
1978	0.7	1.7	1.0	5.4	−1.4	−3.3	10.2
Plan 1979	1.0	..	..	7.6	..	..	..
1979	−3.0	3.0	3.0	4.0	..	−14.0	−46.5
Plan 1980	1.0-1.3	..	..	..	..	..	..
Plan 1976-1980	4.8	..	..	..	..	..	..
Soviet Union							
1976	5.0	5.0	..	..	6.9	..	..
1977	3.5	4.6	..	..	3.5	..	..
1978	4.0	5.1	..	..	2.7	..	..
Plan 1979	4.3	..	..	..	..	..	..
1979	2.0	..	..	..	..	..	..
Plan 1980	4.0	..	..	..	..	..	..
Plan 1976-1980	4.7	..	..	..	..	..	..

Source: As for table 1.1.

[a] Data for personal consumption refer to consumption of the population. Data for social consumption refer only to the consumption of material goods by institutions meeting the collective needs of the community as a whole.

[b] Including changes in work in progress.

growth rate of *national income distributed* in recent years; since 1976 these rates have been below the rates of growth in produced NMP in most countries of the region. Planned targets and actual growth rates of distributed NMP released in a few countries confirm that the same trend continued in the course of 1979 (table 1.5).

In the east European countries these relative movements indicate continued progress to eliminate global trade deficits. Resources for final domestic use have diminished in relative terms and approached more closely the level of home-produced output (see text table). In the Soviet Union, the tendency of distributed NMP to decline relatively to produced NMP was even more marked, having been linked with an increasing surplus in global trade and also, at the same time, with a cut-back in the trade deficit with the west.

In brief, the internal and external global allocation policies described above could not, taken together, provide the material and financial basis for a steady pace of over-all expansion, without an improvement in economic efficiency at the national level to neutralize the restrictive effects of the relative decrease in domestic supplies. This condition was not fulfilled in recent years, particularly in 1979.

Relative rise of NMP, produced and distributed, consumption and net capital formation in 1978
(Indices, 1975 = 100)

	NMP		*Consumption*		*Net capital formation*	
	Produced *(1)*	*Distributed* *(2)*	*(3)*	*Ratio of column (3) to (1)* *(4)*	*(5)*	*Ratio of column (5) to (1)* *(6)*
Bulgaria	119.6	108.6	118.5	99.1	76.2	63.7
Czechoslovakia	112.9	107.6	110.8	98.1	98.6	87.3
German Democratic Republic	113.0	112.3	113.6	100.5	109.1	96.5
Hungary	115.6	118.2	112.0	96.9	135.6	117.3
Hungary[a]	117.0	111.1	114.3	97.7	108.5	92.7
Poland	115.5	110.7	118.3	102.4	95.9	83.0
Soviet Union	116.0	113.0	115.4	99.5	113.6	97.9

Source: As for table 1.1. [a] 1975-1979.

With regard to final domestic use, a shift in favour of *consumption* compared with 1971-1975 was envisaged in the current five-year plans of most countries. The only exceptions were Hungary—where the share of consumption was scaled down—and Romania, where the plans anticipated an unchanged share. In most countries, medium-term targets for consumption were set at around 75 per cent of distributed NMP, though in Romania it remained slightly lower at some two-thirds of distributed NMP. These targets reflect the high priority given to consumption, both personal and social, and their fulfilment was expected to provide material and financial resources for the implementation of ambitious long-term programmes to improve the well-being of the population, —more specifically, by increasing supplies of consumer goods, improving the services supplied to the population, by enlarging housing programmes, and by raising wages, social benefits and pensions. Actual trends in the course of 1976-1978 followed largely the orientation written into the medium-term plans. The relative share of consumption in most countries developed closely in line with, or even outstripped, the five-year targets. The most radical change occurred in Poland, where the share of consumption increased by about 10 percentage points between 1975 and 1979. A considerable shift was also recorded in Bulgaria—almost 8 percentage points between 1975-1978 (table 5.6; for detailed analysis see section on consumers' incomes and supplies).

The over-all growth rate of consumption was held slightly below that of produced NMP, except in Poland and—though to a lesser extent—in the German Democratic Republic. Its growth exceeded the rise in distributed NMP in all countries, however. These relationships were disturbed in Hungary in 1978 as a result of developments in foreign trade. Distributed NMP rose by 10 per cent as compared with roughly 4 per cent in the case of produced NMP. Developments in 1979 brought the relationship between the respective economic aggregates in Hungary more into line with the pattern common for all other countries (see text table above). The data shown in the table confirm that allocation policies succeeded in keeping the relative rise in consumption within desirable limits in relation to produced NMP in most countries. Policy thus tended to slow down the rise in consumption in global terms.

A noteworthy shift in allocations to *net capital formation* also took place, the growth in its volume lagging behind consumption growth in relation to the previous quinquennium. Such developments contributed to a slowdown in over-all expansion in subsequent years, a trend which was reinforced by some diversion of output towards exports. Data on changes in stocks, and in particular on the structure of stocks, are not complete enough to assess their impact on over-all expansion. With the exception of Hungary, stocks were reduced in 1978 in all other east European countries as compared with the situation at the end of 1975. Occasional references to variations in the level of stocks and in their management do not give the impression that any change of particular relevance to the pace of global developments in 1979 took place in that year in relation to previous periods.

Policies to improve the situation in *consumer markets* did not apparently give satisfactory results in 1979. The slowdown in industry, and particularly in the consumer-goods industry, reductions in consumer-goods imports and more restricted agricultural supplies in some countries were largely responsible for the slowdown in retail trade turnover recorded in most east European countries; only in Bulgaria did retail trade expand vigorously. Some acceleration in growth was reported in the Soviet Union. Frequent references have been made, however, to difficulties in supplying the population with fuel and power, and also to shortages of consumer durables, furniture, building materials, and in some countries to difficulties in meat supplies. These largely reflected structural shifts in the pattern of consumer demand in favour of higher quality consumer goods, generated by the growth in incomes. These developments also result from the slow adaptation of consumer-goods industries to changed consumer needs and preferences. It is true great attention has been paid to implementing the long-term development programmes for consumer-goods production specially prepared in most countries. For instance, in the Soviet Union two such programmes have been approved recently, the first directed towards the manufacture of consumer goods, and the second to the development of consumer-oriented services. Moreover, a long-term programme for co-operation in the production of industrial consumer goods was approved at the 33rd session of the CMEA, held in July 1979.

Policies related to *consumer prices*, based in several countries on the principle of maintaining stable prices at whatever cost, did not help to alleviate imbalances on consumer markets. Disregard of the rapidly changing conditions of resource availability further distorted a pattern of already unbalanced demand. Even in Hungary, which makes provision for periodic planned price reviews for many groups of consumer goods, a trend towards increasing subsidies was not reversed. The budgetary cost of subsidies rose from 15 billion forints in 1968 to more than 40 billion in 1978; the latter figure was equivalent to more than 10 per cent of total budget expenditures in that year. In the German Democratic Republic and Poland, subsidies amounted to between 15 and 20 per cent of budget expenditures. The first significant steps to relieve this burden were undertaken in the course of 1979. All countries in the region except the German Democratic Republic, raised the prices of many consumer goods—particularly fuel and power. Consumer prices in Bulgaria, Czechoslovakia, and Romania rose by 2.5-4.0 per cent—more than in the three preceding years together. In Poland and Hungary the respective indices rose by around 6.5 and 9 per cent; for the 1976-1979 period, the aggregate rise amounted to 26 and 24 per cent respectively in these two countries. In all countries, price increases were fully, or to a large degree, compensated by rises in incomes, social benefits and pensions.

Real incomes and real wages rose in all the countries between 1976 and 1979 by rates considerably lower than those in the previous five-year period. In a few countries, reported rates were close to zero in 1979. Prospects for reversing these trends in 1980 are not good and the annual plans for the year called for more modest relative growth in incomes in a majority of the countries. The Hungarian Minister of Finance, referring to the prospects for 1980 and "probably a few years afterwards" stated that "all we shall be able to afford is to maintain the standard of living already achieved on a society-wide basis. An increase in the efficiency of economic activity is a precondition for maintaining the standard of living".[47]

(viii) Policy objectives for 1980

As mentioned earlier, the low level of economic expansion in 1979 is considered as largely the result of an exceptional combination of growth-inhibiting factors and circumstances. The unforeseen nature of some of them, as well as lack of resources, precluded timely and effective intervention. The annual plans for 1980 are based on expectations that the conditions of economic development will revert to the pattern of a "normal" year such as 1978. In several countries, target rates for the growth of NMP have indeed been set slightly below the 1978 actual rates. This reflects, first of all, a continuation of policies to maintain stable rates of growth in the long-run, and also, an evaluation of the difficulties which might impede a speedy recovery after the setbacks of 1979.

For the region as a whole, the implied target rate of the growth of NMP for 1980 is slightly higher than 4 per cent—the same as 1978.[48] This is almost twice as high as the 2.4 per cent aggregate rate actually recorded for the region in 1979.

The east European countries and the Soviet Union taken together envisage an acceleration in over-all expansion. Bulgaria is the only exception: the target rate of growth has been scaled down to 5.7 per cent, compared with a 6.5 percentage rate in 1979. In Czechoslovakia and Hungary the respective targets have been set at rates below 4 per cent, but they nonetheless imply some acceleration in economic performance. The biggest acceleration is foreseen in Poland (around 3.5 percentage points); the target increase of roughly 1.5 per cent, however, is still the lowest in the region. The German Democratic Republic and Romania have opted for accelerated expansion at rates exceeding 1978 performance. The Soviet plan calls for a 4 per cent increase in distributed NMP. The targets in the Byelorussian and Ukrainian SSRs indicate a significant step-up in NMP growth—to 7 and 3.5 percentage points as compared with 1979.

For 1980, *industry* is scheduled to accelerate its growth performance, but only by 1 percentage point in relation to the historically low 1979 rates of expansion. It seems that the expected pace of industrial advance has been limited in the first instance by the low level of performance in 1979, and more specifically by the growing constraints in labour and material input supplies experienced in that year. Since no radical improvements in that regard can be expected in 1980, target rates have been set below the levels attained in 1976-1978. For the region as a whole, the implied 4.7 per cent rate of industrial growth for 1980 is below the average achieved (more than 5 per cent) during the first four years of the current plan period. For the east European countries taken together, the implied target rate amounts to 5.2 per cent. This rate is considerably increased by the very ambitious growth target of 11.4 per cent stipulated in the Romanian plan, which is the highest Romanian target retained during the current quinquennium; growth rates of this magnitude were, however, in fact achieved in both 1976 and 1977. The much lower implied target rate for the east European countries excluding Romania is estimated at some 4.2 per cent or less than 0.5 percentage points higher than the 1979 target. The effect of growth-inhibiting factors on industrial performance is clearly, therefore, considered to be of decisive importance—much more so than in the Soviet Union. The acceleration in the growth rate envisaged by the Soviet plan is 1.1 percentage points as compared with 1979. Two countries—Bulgaria and the German Democratic Republic—foresee some slowdown in industrial expansion in relation to 1979. The three other east European countries—Czechoslovakia, Hungary and Poland—have stipulated target rates close to an increase of 4 per cent; this is higher than in 1979, but about one percentage point below performance in 1978.

Agricultural production in all countries of the region is scheduled to attain record levels (see text table on page 127). Bulgaria and Romania, the two countries with record farm output levels in 1979, also plan considerable increases: 3.7 per cent in the former and between 5 and 6 per cent in the latter country. The most ambitious agricultural output growth target (8.8 per cent) has been set in the Soviet Union. The plan for the Ukrainian SSR is even higher (10.1 per cent), whereas the Byelorussian plan calls for a more modest rise (5.8 per cent)—in spite of a reported decline of 5.8 per cent in 1979.

Plan targets by major agricultural sectors have been released only by Czechoslovakia and Hungary. In both countries, crop production is planned to rise by more than 10 per cent. The planned rise in animal production is less than 0.5 per cent in Czechoslovakia, while Hungary has opted for a slight decline (—0.3 per cent). High rates of growth in crop production, together with much more modest rates of increase for animal production are, most probably, characteristic of the plans of the other countries in the region.

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[47] *Népszabadság*, 21 December 1979. (Speech of the Hungarian Minister of Finance submitted to the winter session of Parliament.)

[48] The difference of 0.5 percentage points with respect to the rate in 1978 in table 1.1 is due to a disparity between the growth rates of distributed and produced NMP in the Soviet Union (4 and 4.8 per cent). Since the target rate for produced NMP has not been released for 1980, the former planned growth of distributed NMP has been used for the calculation. The 1978 rate was 4.1 per cent according to the same methodology of computation. See table 1.1 in the *Economic Survey of Europe in 1978*, part I, chapter 3, p. 73.

Annual plans for 1980 do not envisage any considerable change in global *investment policies* in relation to previous years in most countries. As shown earlier, priorities in the allocation of resources have been granted to non-investment uses with the aim of redressing imbalances in foreign trade and payments while maintaining or stepping-up the share of consumption. The possibilities for investment expansion are consequently rather limited. Investment spending scheduled for 1980 does not suggest much buoyancy in this sector of demand except in Bulgaria. In most east European countries, the biggest expansion took place in 1977; since that year a downward tendency has predominated, which appears likely to continue into 1980 (table 4.1). Only in Bulgaria has the trend been markedly at variance with this pattern. In that country, a new upsurge is scheduled for 1980 with an investment programme amounting to 7 billion leva. After two years of slower growth in investment spending, Czechoslovakia has planned the same rate of expansion (2.4 per cent) as achieved in 1979. The German Democratic Republic and Poland have opted for zero growth. In the former country, this continues the decelerating tendency which has characterized the whole period since 1976, but in the latter, zero or near zero growth will be superimposed on to an estimated 10 per cent reduction which occurred in 1979.

Similarly, if less drastically, the volume of investment spending in Hungary is scheduled to fall by 4-5 per cent in 1980, compared with a fractional decline in 1979. After three years of booming investment in Romania, with a peak rate of 16 per cent growth recorded in 1978, a slowdown was targeted for 1979. In the event, the level of investment fell below planned levels in that year though the 5 per cent rate growth recorded was the highest in eastern Europe; the plan for 1980 envisages an expansion at a rate slightly below 5 per cent.

In the Soviet Union, investment expansion in volume terms attained its peak in 1978 (6.1 per cent), but it slowed down to only 1 per cent in 1979. This was one billion roubles less than the planned 132 billion roubles. For 1980 an objective of 135.5 billion roubles has been laid down. The actual increase will probably be higher than planned, since existing stocks of domestic and imported equipment will be reduced by putting into operation a proportion of them amounting to 22 billion roubles —equal to almost half of investment in machinery and equipment in 1978.[49]

The developments in investment spending and in over-all economic growth (NMP) planned for 1980 will not lead to any notable change in the trend of increasing ICORs which has been apparent throughout the current five-year period. A decrease—and then only slight—in the aggregate ICOR is likely only in the German Democratic Republic on the basis of current plan targets for 1980, but even at that level it will considerably exceed the ratio implied by current five-year plan targets. Trends in ICORs during the 1976-1980 period clearly show that the rise in NMP has become increasingly expensive in terms of investment expenditures everywhere, and that the factor/output balances underlying the current five-year plans have been fundamentally disturbed.

In this situation, two policy options are open to planners: either to increase investment spending and to maintain the planned pace of NMP growth—an option which has become increasingly difficult to maintain due to the resource constraints described earlier; or to keep investment within the planned limits and to accept some slowdown in over-all expansion. Past experience shows that actual developments have followed the second course. Undoubtedly, a rise in investment efficiency would improve the underlying relationships determining global economic outcomes, but probably not to such an extent as to reverse the general tendency generated largely by shifts in structural policies to increase the share of investments in the energy complex (coal in particular), agriculture and the non-material sphere (especially housing construction).

As in the previous year, emphasis is placed on the concentration of investment in key projects. This assumes a reduction in the over-all number of projects. A total of 600 new projects has been scheduled for 1980 and 1981 in Bulgaria, as compared with around 1,000 in 1979. In Czechoslovakia, new construction projects will be cut by 20 per cent in 1980. In the German Democratic Republic, 450 new projects had originally been planned, but they have been reduced to 250 in the final plan decision. Hungary envisages no new large-scale project starts in 1980, and reference has been made to the necessity of completing nine major projects already in progress. In Poland, planned cut-backs in global investment have led to a reduction in the number of new projects: 150 envisaged by the central plan and 108 by local plans. Among them, 24 projects have been classified as "exceptionally important". It is expected that such cut-backs will reduce the labour force in industrial construction by nearly 40 thousand workers. Romania also anticipates a reduction in the number of projects: to 670 as against 761 in 1979. References in the Soviet Union frequently underline the need for reducing the number of new construction starts.

Developments in the *foreign trade* of the east European countries and the Soviet Union have been influenced by trends on world markets, and more especially by conditions for trade with the west. East-west trade turnover now accounts for approximately 30 per cent of the total trade of the region (in US dollars) but in fact it is of great importance not only for the development of trade as a whole, but also for the over-all economic performance of every country in the region. Explicit references have been made in this regard in the statements introducing the annual plans for 1980 in most countries. All agree that an improvement in the situation of the world economy cannot be expected in the near future, and that many uncertainties persist. Specifically, oil supply constraints and tensions in international political relations have undoubtedly contributed to the much more cautious approach to trade prospects in 1980.

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[49] In 1978, the total value of investment in machinery and equipment was 46.6 billion roubles.

The long-term tendency towards increasing dependence on foreign trade to ensure desired levels of economic performance and growth has been accompanied by the appearance of imbalances not only in trade, but also in domestic production and consumption structures. In some countries, as shown earlier, the smooth operation of some domestic economic sectors has been disturbed, which has largely contributed to the slowdown in overall expansion. Nevertheless, trade policies applied in previous years cannot easily be discontinued given the financial obligations carried over from the past (foreign debt), and also the constraints imposed by current performance. The adaptation of domestic structures to the new external situation in general will perhaps last longer than currently expected, given the direction of present-day developments in the world economy.

These factors, of decisive importance for foreign trade in the course of 1980, have been taken into account in setting the targets for trade with the west and trade in general. Given the complex and uncertain situation with which they are faced in these respects, three countries of the region have opted for similar foreign trade objectives according to the rather fragmentary reported data available. The German Democratic Republic, Hungary and Poland aim to maintain or even to accelerate slightly the relative growth of trade in 1980. In the German Democratic Republic, the target rate for trade turnover has been set at the same level as in 1979 (12 per cent).

In Poland, the 1980 target for total trade turnover, at 9.1 per cent, is only slightly higher than the estimated rate of 8.9 per cent in 1979. Although the change in the target for total turnover is minor, the Polish targets for imports and exports show some modification in policy objectives: an increase in the rate of import expansion (8 per cent as compared with 6.3 per cent in 1979) and a slowdown in exports (10.9 per cent as against 12.2 per cent). The reported targets for Polish east-west trade are a 10 per cent increase in exports and 2 per cent in imports, which are designed to cut the corresponding deficit for 1980 to 0.3 billion dollars (as compared with 0.7 billion reported for the first nine months in 1979). Hungary is the country where the growth rate of trade turnover was lowest in 1979—estimated at something more than 4 per cent. This was due to a considerable divergence between export growth (13 per cent increase) and import performance (3 per cent decline). Target rates for 1980 have been reported only for Hungary's trade with CMEA countries and for east-west trade; trade turnover is targeted to rise by 5 to 6 per cent in the former case, whilst in the latter the plans aim at a decrease in export growth (from around 15 per cent in 1979 down to 10 per cent) and of import growth (from roughly 5 per cent to 1-2 per cent). If these targets are fulfilled, the total trade turnover of Hungary would expand at a rate slightly below 5 per cent.

Bulgaria, Czechoslovakia, Romania and the Soviet Union, have anticipated a marked slowdown in trade turnover for 1980. For Bulgaria, the target rate has been set at 7.5 per cent (as compared with an 11.4 per cent increase in 1979). In Romania, the target rate of 14.8 per cent is below the 19.1 per cent increase recorded in 1979. In Czechoslovakia global indicators have not been reported but a target of 10 per cent has been set for exports to the non-socialist countries (compared with around 15 per cent in 1979) and 6 per cent for the corresponding import flow (15.5 per cent in 1979). A slowdown is also envisaged for trade with CMEA member countries—from around 9 per cent in 1979 down to less than 7 per cent for 1980 in terms of total turnover. These developments in trade by major regions would lead to a slowdown in total Czechoslovak exports (7.8 per cent as against 10.3 per cent in 1979) but to an even more pronounced decline in imports (6.6 per cent as against 11 per cent). In terms of total trade turnover, the implied target amounted to a rate slightly above 7 per cent for 1980, as against a 10.8 per cent increase in 1979. No detailed information is available on planned developments in Soviet trade. The 4.7 per cent increase targeted for global trade turnover is far below the increase of around 13 per cent recorded in 1979. For the region as a whole, the tendency to cut back rates of trade expansion will dominate; the estimated implied target rate of 7.5 per cent for trade turnover is considerably smaller than the 11-11.5 per cent increase estimated for 1979.

As underlined in the *Economic Survey of Europe in 1978*, part I, the elements of a new policy orientation were adopted in the course of that year in most countries of the region. Emphasis was placed on policies seeking to solve long-term economic development issues with a view to preparing the conditions for stable, balanced and dynamic growth in the longer term.[50] The investment provisions in the annual plans for 1979 already reflected shifts in priorities in favour of longer-term problems. Foreign trade policies in several countries indicated a radical break with past developments based on heavy trade deficits. Developments in the course of 1979 were not favourable to such an orientation in development strategy. From the very beginning of 1979 and throughout that year a series of events took place, the adverse effects of which on economic performance imposed problems of a short-term but urgent character. This left little room to manoeuvre, and both economic performance and policy departures in most countries during that year appeared in many cases to be directed towards the solution of immediate problems, rather than towards preparations to meet problems with a longer time horizon. However, the long-term orientation which dominated investment programmes was not greatly modified, although the negative effects of poor performance in some sectors were not completely avoided. Thus the planned and anticipated increase in efficiency in this area of the economy did not fully take place. Likewise, policies in foreign trade in some countries were applied with such determination that the foreign trade balances were notably improved. However, the determination to implement planned policies in the field of investment and foreign trade made the solution of urgent, short-term problems more difficult. The annual plans for 1980 confirm in all respects the long-term nature of policy orientation in two decisive areas of economic development—investment and foreign trade. Though there have been some modifications compared with 1979 plans, these largely reflected economic performance in some sectors in that year and, to an increasing extent, new developments in international economic and political relations.

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[50] In most east European countries it meant a reduction in target rates for the growth of NMP as compared to the previous years and also to the current five-year plans.

2. AGRICULTURE

(i) Growth of output

Growth of *agricultural output* in 1979 was seriously affected by unfavourable climatic conditions in most countries. After relatively good performance in the first three years of the current five-year-plan period, the volume of gross agricultural output in the Soviet Union in 1979 declined by 4 per cent as compared with the previous year. Czechoslovakia, the German Democratic Republic, Hungary and Poland also recorded negative growth. By contrast in Bulgaria and Romania agricultural output rose by 6 and 5 per cent respectively (table 2.1).

In the Soviet Union, below-plan autumn sowing in 1978, coupled with above-average winterkill (about 20 per cent) reduced the 1979 winter grain harvest which was estimated at 18 per cent below the previous year. In addition late spring sowing due to wet and cold April weather affected grains and pulses in the European areas of the Soviet Union, though the biggest impact fell on sugar-beet and sunflower. May was warm and dry, which reduced soil moisture supplies to below-normal levels in important grain-growing areas in the European parts of the Soviet Union. The severe winter and spring floods damaged crops in Poland, Czechoslovakia and the German Democratic Republic. Excessively hot weather just before harvest time in Bulgaria, Hungary and Romania reduced yields of wheat.

Agricultural production during 1976-1979 rose more slowly than envisaged in the five-year plans (see chart 2.1). According to preliminary estimates only Romania will attain the 1980 target; the original five-year plan envisaged an average growth in agricultural output of 5.1-7.6 per cent annually, and during the four years' performance averaged 6.0 per cent annually (1.4 points higher than in the previous five-year-plan period). In 1976-1979, Bulgaria also experienced good performance—2.7 per cent annual growth which was 0.5 points faster than in 1971-1975. Hungary recorded annual average growth rates which were similar in both periods (3.4 per cent). In Czechoslovakia, the growth of gross agricultural production in the current five-year-plan period declined from 2.9 per cent in 1971-1975 to 1.9 per cent in 1976-1979; in the German Democratic Republic—from 2.1 to 1.0 per cent; in Poland —from 3.1 to 1.2 per cent; and in the Soviet Union—from 2.5 to 2.2 per cent.

Agricultural output indices

(1968-1972 = 100)

	Bulgaria	*Czeco-slovakia*	*German Democratic Republic*	*Hungary*	*Poland*	*Romania*	*Soviet Union*
1978	119.9	122.3	115.8	131.5	120.9	147.6	122.5
1979	127.1	117.5	113.5	130.7	119.2	155.0	117.6
Plan 1980	131.8	126.0	116.9	137.5[a]	126.1	163.4[a]	127.9

Sources: As for table 2.1.

[a] Mid-point of range.

TABLE 2.1

Gross agricultural output

Country and period	*Annual percentage change*			*Percentage share of total output*	
	Total	*Crop*	*Animal*	*Crop*	*Animal*
Bulgaria					
1976	4.1	5.7	2.0	57.5	42.5
1977	−4.6	−9.5	2.0	54.6	45.4
1978	4.3	4.5	4.0	54.7	45.3
Plan 1979	7.0	. .	. .	. .	. .
1979	6.0	5.6	6.4	54.5	45.5
Plan 1980	3.7	. .	. .	. .	. .
Plan 1976-1980	4.1	. .	. .	. .	. .
Czechoslovakia					
1976	−2.4	−6.3	0.7	42.9	57.1
1977	9.1	15.6	4.2	45.4	54.6
1978	1.5	0.2	2.6	45.5	54.5
Plan 1979	3.8	6.7	1.5	46.0	54.0
1979	−3.9	−8.7*	0.4	43.0	57.0
Plan 1980	7.2	12.0	3.1	47.1	52.9
Plan 1976-1980	3.6	4.6	2.8	. .	. .

TABLE 2.1 (*continued*)

Gross agricultural output

Country and period	*Annual percentage change*			*Percentage share of total output*	
	Total	*Crop*	*Animal*	*Crop*	*Animal*
German Democratic Republic					
1976	−4.9	−12.1	−0.5	34.8	65.2
1977	6.8	19.9	−0.4	39.1	60.9
1978	1.4	0.0	2.5	38.5	61.5
Plan 1979	1.3	..	..	..	..
1979	−2.0*	−7.4	1.4	36.5	63.5
Plan 1980	0.5 [a]	..	..	36.6	63.4
Plan 1976-1980	4.2	4.5	4.1	..	..
Hungary					
1976	−2.7	−7.1	2.7	51.9	48.1
1977	10.3	12.0	8.4	52.7	47.3
1978	2.0	1.0	3.0	52.0	48.0
Plan 1979	3.0-3.5	5.0	2.0	52.6	47.4
1979	−0.6*	−3.0	2.0	51.5	48.5
Plan 1980	5.0-5.5	10.0-11.0	−0.3	53.0	47.0
Plan 1976-1980	3.4	3.7	2.4	..	..
Poland					
1976	−1.1	5.0	−8.7	58.8	41.2
1977	1.4	−7.2	13.7	53.8	46.2
1978	4.1	5.4	2.6	54.5	45.5
Plan 1979	3.9-4.8	..	..	..	..
1979	−1.4	−3.8	1.4	53.2	46.8
Plan 1980	5.8	..	..	..	..
Plan 1976-1980	4.3	6.1	2.5	..	..
Romania					
1976	17.3	22.0	11.2	59.1	40.9
1977	−0.9	−4.8	5.4	57.0	43.0
1978	3.4	0.0	5.9	55.7	44.3
Plan 1979	5.1-5.6	..	..	..	..
1979	5.0	5.2	4.7	55.8	44.2
Plan 1980	4.7-6.0	..	..	..	..
Plan 1976-1980	6.9-9.0	..	..	..	..
Soviet Union					
1976	6.5	18.8	−2.9	48.0	52.0
1977	4.0	−1.8	9.4	45.3	54.7
1978	2.7	5.0	0.8	46.3	53.7
Plan 1979	5.8	..	..	..	..
1979	−4.0	−8.4	0.3	44.1	55.9
Plan 1980	8.8	..	..	..	..
Plan 1976-1980	5.1	..	..	..	..
Byelorussian SSR					
1976	6.2	12.4	1.2	46.7	53.3
1977	−1.6	−12.1	7.5	41.7	58.3
1978	6.8	18.5	−1.5	46.3	53.7
Plan 1979	3.6	..	..	..	..
1979	−5.8	..	..	..	..
Plan 1980	3.8	..	..	..	..
Plan 1976-1980	3.8	..	..	..	..
Ukrainian SSR					
1976	10.8	26.8	−1.9	50.8	49.2
1977	5.2	−1.3	11.9	47.7	52.3
1978	0.7	1.9	−0.4	48.2	51.8
Plan 1979	4.5	..	..	..	..
1979	−6.8	..	..	..	..
Plan 1980	10.1	..	..	..	..
Plan 1976-1980	4.1	..	..	..	..

Sources: National statistics, *CMEA Yearbooks* and plan-fulfilment reports.

[a] Net output including food processing industry.

Chart 2.1

Agriculture: output and factor inputs
(Indices, 1968-1972 = 100)

- Gross output.
- Five-year-plan target.
- Annual plan target.
- Net output.
- Employment.
- Arable land.
- Fixed assets.
- Gross investment.

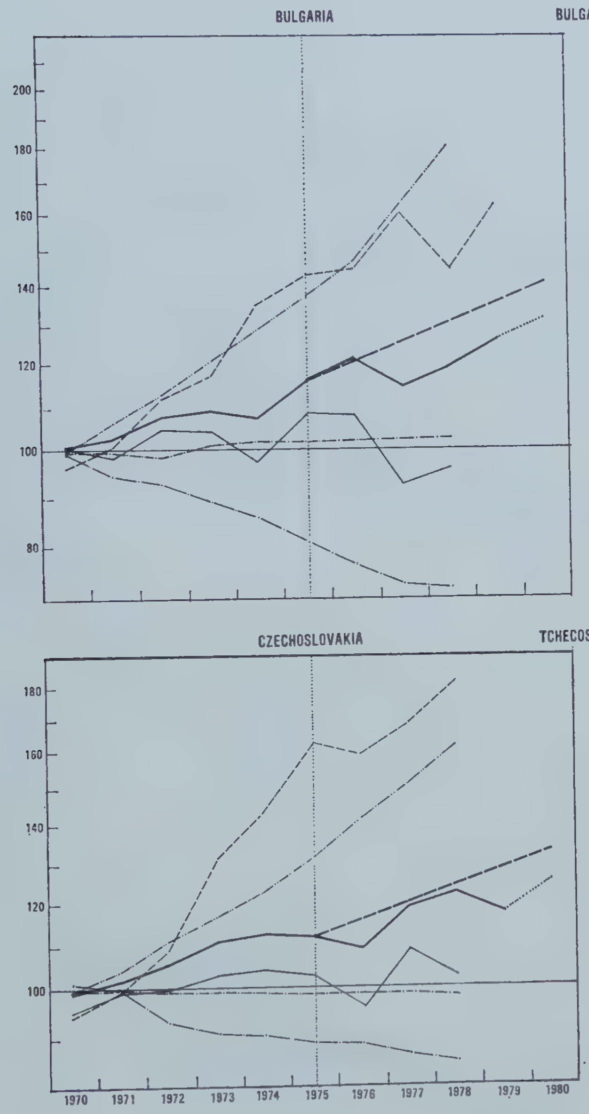


Chart 2.2

Agriculture: efficiency indicators
(Indices, 1968-1972 = 100

- Gross output/land ratio.
- Gross output/employment ratio.
- Land/employment ratio.
- Fixed assets/land ratio.
- Fixed assets/employment ratio.
- Fixed assets/gross output ratio.

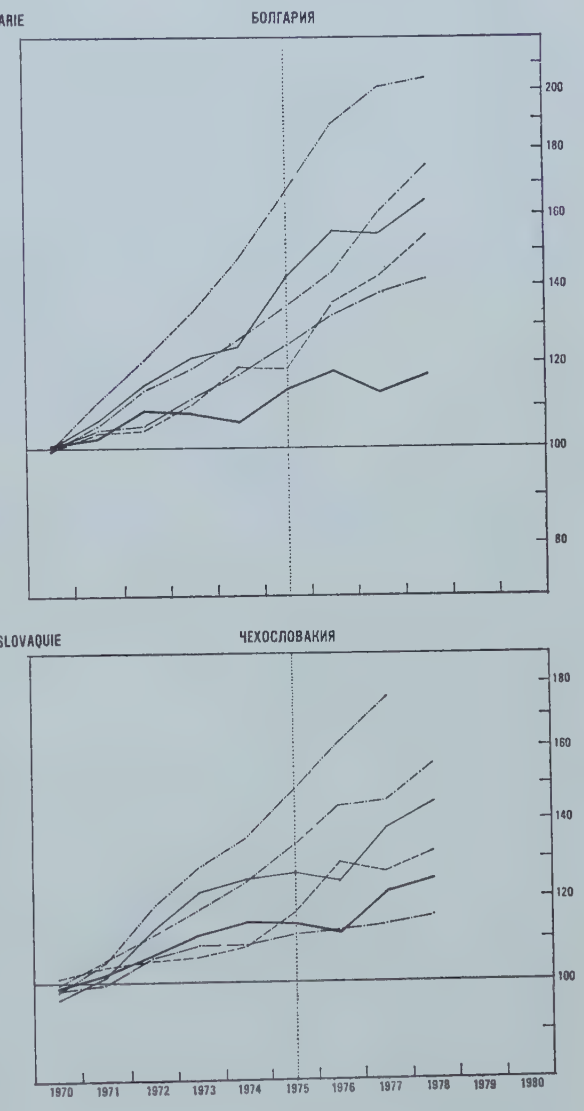


CHART 2.1 (*continued*)

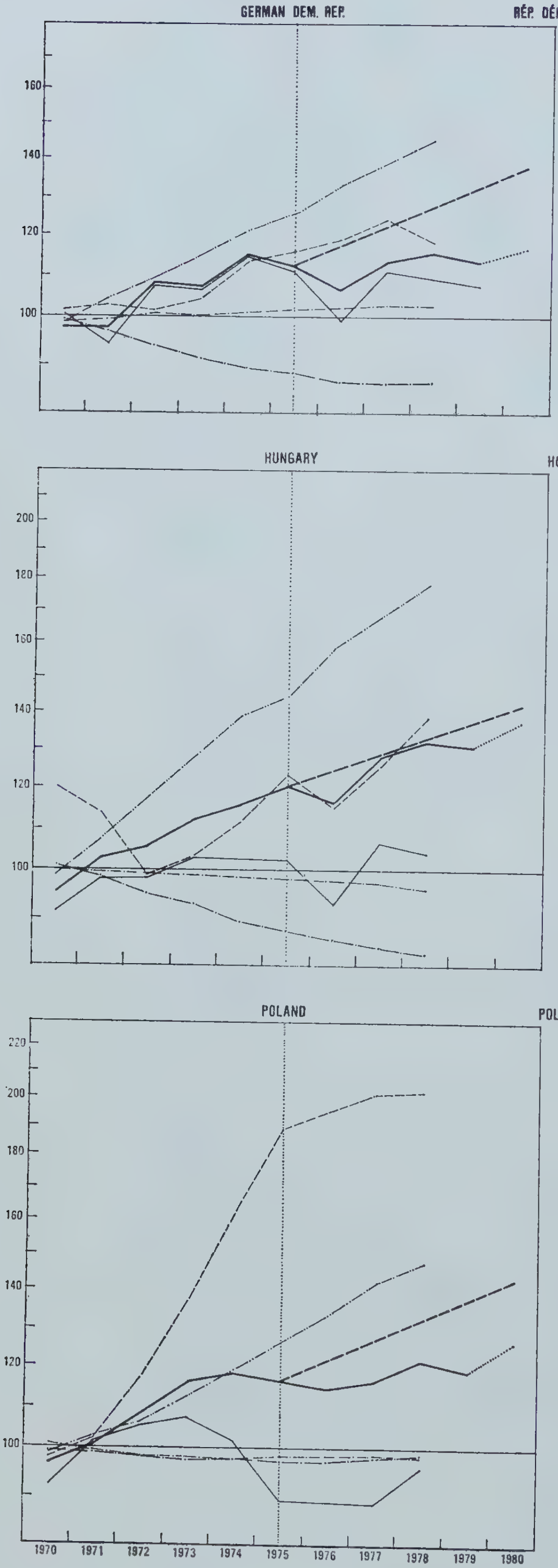


CHART 2.2 (*continued*)

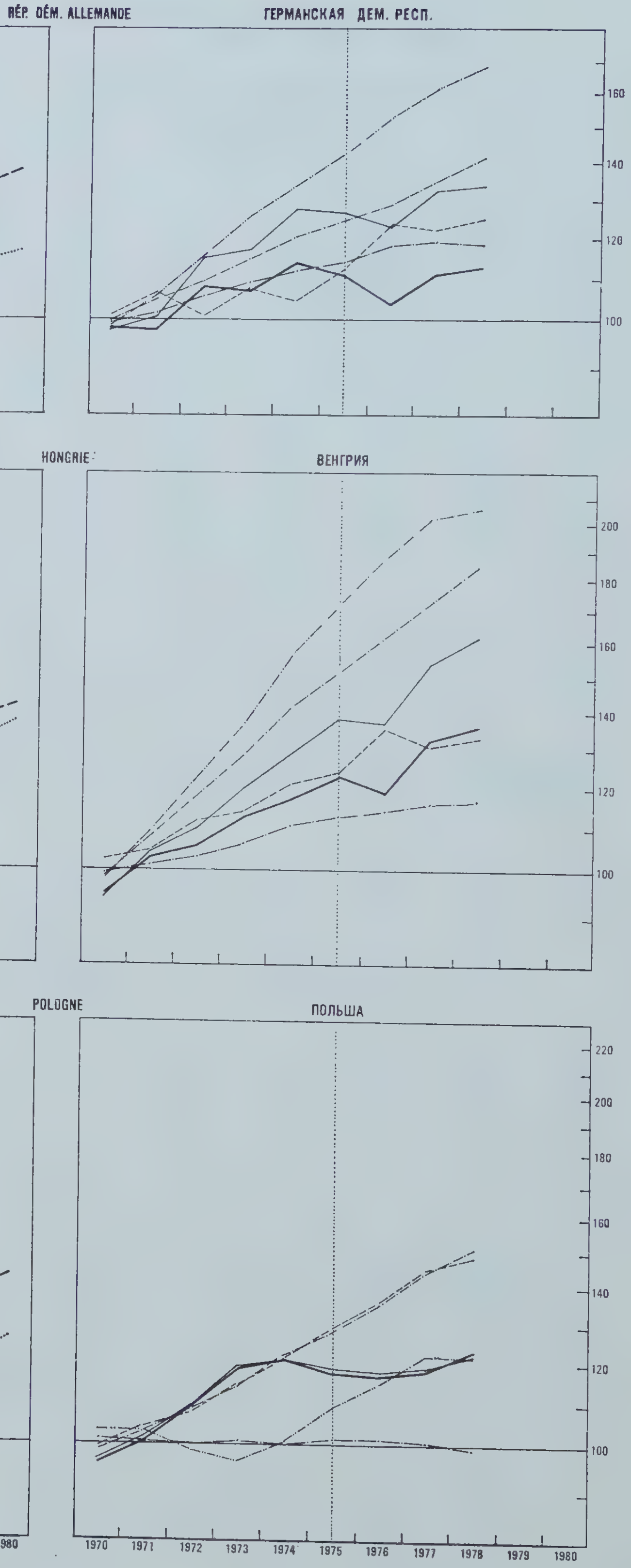


CHART 2.1 (*concluded*)

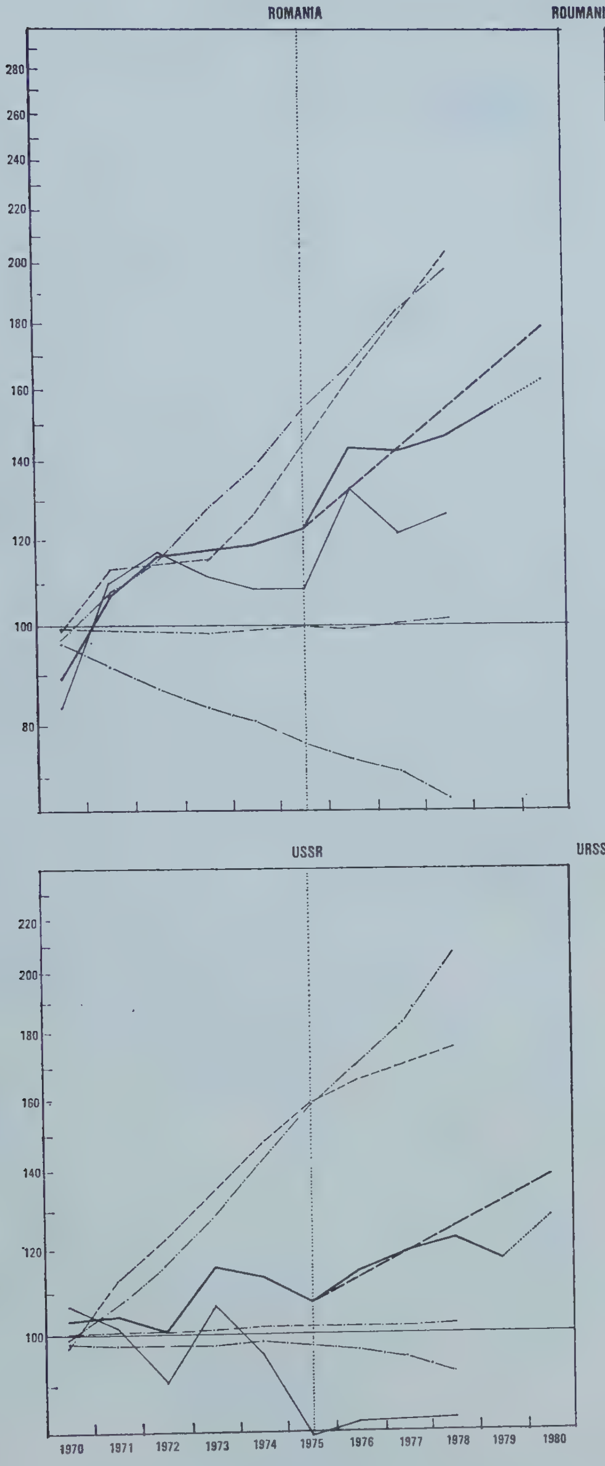
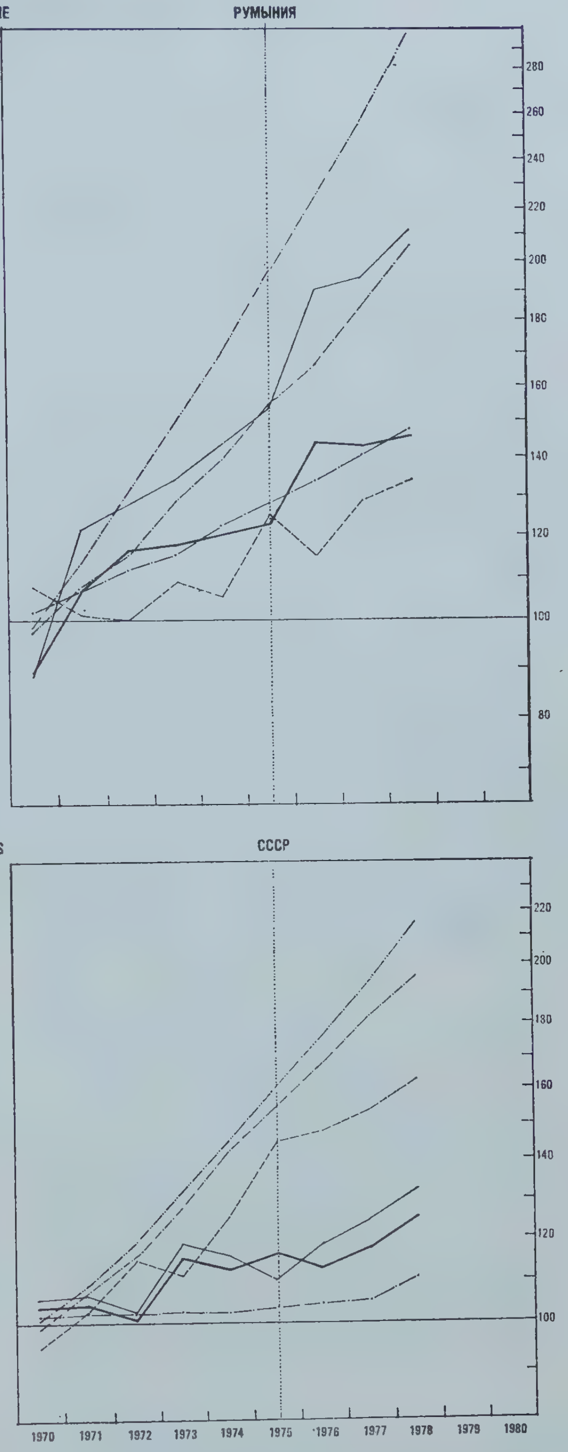


CHART 2.2 (*concluded*)

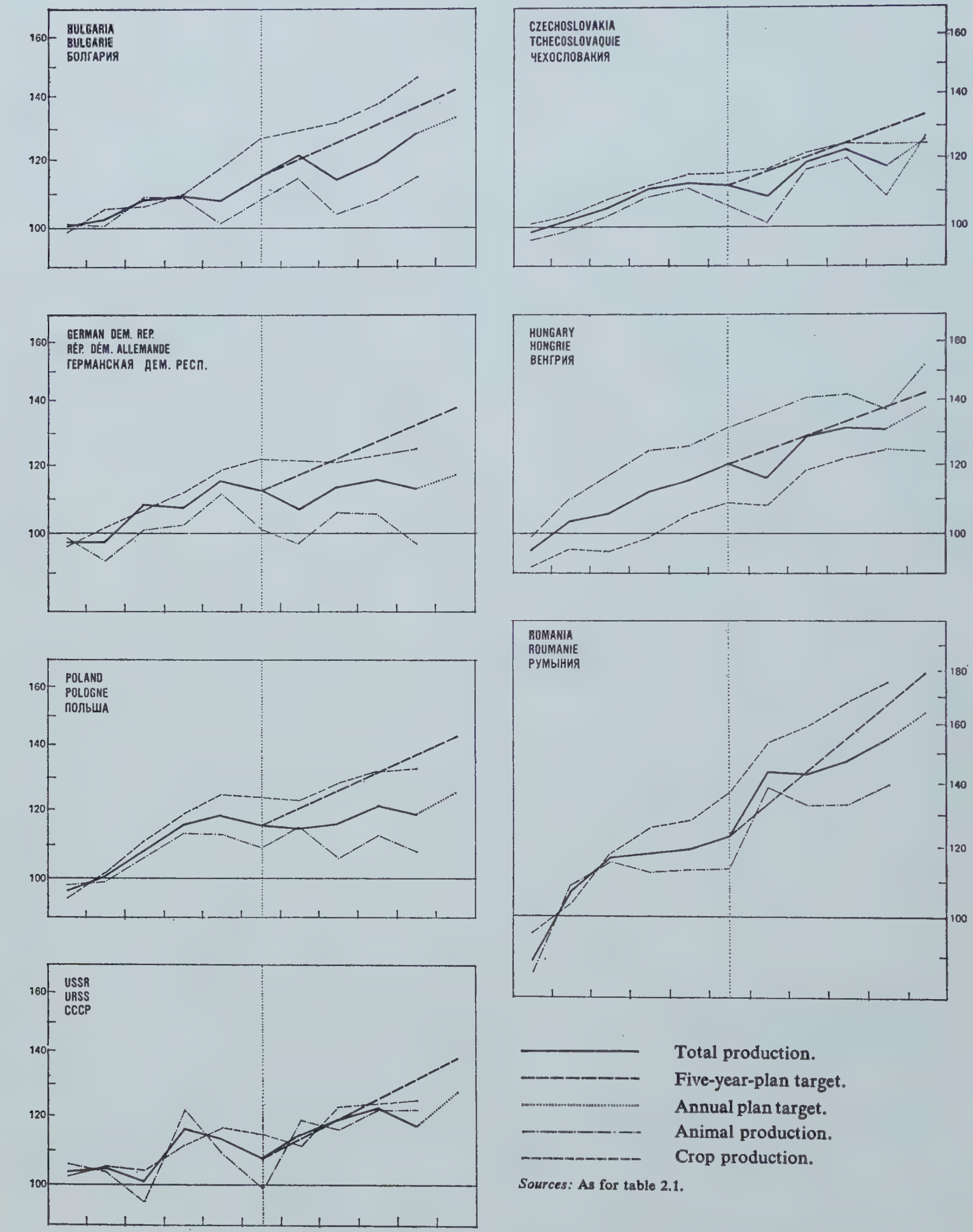


Sources: As for table 2.1.

CHART 2.3

Gross agricultural output: total production, crop and animal production

(*Indices, 1968-1972 = 100*)



Sources: As for table 2.1.

Crop (A) and livestock (B) production indices

(1968-1972 = 100)

	Bulgaria		*Czechoslovakia*		*German Democratic Republic*		*Hungary*		*Poland*		*Romania*		*Soviet Union*	
	A	*B*	*A*	*B*	*A*	*B*	*A*	*B*	*A*	*B*	*A*	*B*	*A*	*B*
1978........	109	137	120	124	106	123	142	122	113	131	133	169	122	123
1979........	118	145	110*	125*	98	125	137	124	108	133	140	177	112	123
Plan 1980 ..	..	..	123	129	..	..	152	124	..	..	..	..	..	..

Sources: As for table 2.1.

The bad harvest of 1979 worsened the structure of agricultural production, and the existing gap in the development of crop and animal production increased (see text table above). Since 1978, measures have been proposed in all countries to promote the growth of crop production. All countries have recognized that fodder should be the basic element in increasing crop production over the current five-year period. Domestic fodder resources do not meet requirements in either quantitative or qualitative terms. The continuous rise in the herds and in output of livestock products, together with large fluctuations in crop output, have resulted in persistent imbalances in the structure of output, characterized by excessive dependence on imported feed grain in most countries. Feed imports have contributed to existing strains on the balance of payments, though price rises on international markets have set limits upon imports. Fodder shortages are thus particularly acute when bad weather reduces harvests, which has occurred every second or third year in one or more countries. During the first four years of the current plan period, only Romania fully satisfied its domestic fodder requirements—and indeed became a net exporter of feed grains. Its share of livestock products in total agricultural output, however, is the lowest in the region. Hungary's fodder imports have diminished—but it is the only country where crop production has risen by more than livestock output during the present decade.

Plans for 1980 have been set relatively high in all countries, ranging between 3.7 per cent for Bulgaria and 8.8 per cent for the Soviet Union. Apparently planners have taken into account the generally low level of 1979 output and have forecast better results based on the assumption of normal weather. Data on output structure plans are available only for Czechoslovakia and Hungary. Of the two, the share of livestock output in total will apparently fall only in Hungary.

(ii) Trends in agricultural inputs

All east European countries and the Soviet Union continued to emphasize more economical use and higher quality of inputs with a view to increasing the efficiency of production. The weather-induced setbacks in 1979 have undoubtedly interrupted the growth of over-all factor productivity, but insufficient data are as yet available for detailed analysis. Nevertheless the trend of capital intensity and labour and land productivity (see chart 2.2) indicates the general thrust of policy measures in eastern Europe and the Soviet Union.

The *labour force* in east European agriculture continued to decline (see table 2.2). Shifts from agricultural to non-agricultural employment have been facilitated by the mechanization of manual labour and the consequent increases in agricultural labour productivity. The share of agriculture in total employment in 1978 ranged from 9.7 per cent in the German Democratic Republic to 32.8 per cent in Romania. The number of employees per 100 hectares of agricultural land in the same year ranged from 4.8 in the Soviet Union to 25.3 in Poland. As in the past, agriculture still remains an important source of labour for other sectors in these countries.

During 1970-1978 as a whole, all countries experienced negative growth of agricultural employment (see text table below). It was most marked in Romania and Bulgaria and relatively slight in Poland and the Soviet Union. Since 1975 Poland has, however, increased agricultural employment. Almost all other countries recorded slower rates of decline in the agricultural labour force. The exception was the Soviet Union, where the rate of decline has increased. The slower decline in agricultural employment in most countries reflected the smaller pool of surplus agricultural labour, and also policy measures undertaken in some countries to stabilize the agricultural labour force.

The worsening trend in the sex and age structure of agricultural employment has not yet been halted or reversed. All countries announced measures for training young people to work in crop and animal farming and in land amelioration. In the Non-Black Earth Zone of the Soviet Union, 18 schools were established, in which 5-6 thousand young skilled workers annually are trained in land reclamation. Also, 21 training combines were established for improving the professional qualifications of workers. Engineers and technicians in water control and construction account for one-third of agricultural specialists with higher education.[51]

The share of workers and employees as distinct from collective, co-operative and private farm workers in total agricultural employment in eastern Europe and the Soviet Union as a whole increased from 32.2 per cent in 1975 to 36.8 per cent in 1978. In the Soviet Union, the share of workers and employees in total agricultural employment in 1978 was 41.2 per cent. In the east European countries it ranged between 15.8 per cent in Romania and 35.9 per cent in the German Democratic Republic. The exception was Bulgaria, where this share reached 84.9 per cent due to institutional changes.

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[51] See *Ekonomika sel'skogo khozyaistva*, 1979, No. 8, p. 14.

Table 2.2

Employment in agriculture

Period	*Economically active population in agriculture*		*Percentage of total economically active population*	*Labour force per 100 hectares of agricultural land*	*Economically active population in agriculture*		*Percentage of total economically active population*	*Labour force per 100 hectares of agricultural land*
	Total (thousands)	*Annual percentage change*			*Total (thousands)*	*Annual percentage change*		
	Bulgaria				*Romania*			
1976	1 130	−4.9	26.2	18.2	3 670	−5.0	35.8	24.5
1977	1 082	−4.2	25.3	17.4	3 559	−3.0	34.6	23.7
1978	1 057	−2.3	24.6	17.0	3 375	−5.2	32.8	22.5
	Czechoslovakia				*Soviet Union*			
1976	1 003	−2.1	14.1	14.3	26 600	0.0	22.8	4.8
1977	980	−2.9	13.7	14.0	26 500	−0.4	21.9	4.8
1978	961	−1.9	13.3	13.8	26 400	−0.4	20.9	4.8
	German Democratic Republic				*Byelorussian SSR*			
1976	789	−2.3	9.8	12.5	1 314	−0.2	27.0	13.4
1977	784	−0.6	9.7	12.5	1 286	−2.1	26.1	13.1
1978	788	0.4	9.7	12.5	1 262	−1.9	25.3	12.9
1979	791	0.4	..	12.6	..	..	..	..
	Hungary				*Ukrainian SSR*			
1976	1 016	−2.0	19.9	15.0	6 341	0.1	25.4	15.0
1977	980	−3.5	19.3	15.0	6 213	−2.0	24.6	14.7
1978	977	−0.3	19.3	14.5	6 123	−1.4	24.1	14.5
1979	979	0.2	19.3	..	..	..	..	..
	Poland							
1976	4 753	−0.2	27.9	24.8	..	..	..	..
1977	4 772	0.4	27.6	25.0	..	..	..	..
1978	4 813	0.9	27.6	25.3	..	..	..	..

Sources: As for table 2.1.

Agricultural employment indices

	Bulgaria	*Czechoslovakia*	*German Democratic Republic*	*Hungary*	*Poland*	*Romania*	*Soviet Union*
(Index, 1975 = 100)							
1978	89.0	95.5	97.5	94.4	101.1	87.3	94.4
Average annual percentage change							
1971-1975	−4.2	−2.7	−2.4	−2.9	−0.4	−4.7	−0.2
1976-1978	−3.9	−1.2	−0.8	−1.9	0.4	−4.5	−1.9

Sources: As for table 2.1.

In comparison with 1971-1975, gross agricultural production per employee increased during the 1976-1978 period by 13.4 per cent annually in Romania, by 7.9 per cent in Hungary, by 5.5 per cent in Bulgaria, by 5.0 per cent in Czechoslovakia, by 4.2 per cent in the Soviet Union, by 3.4 per cent in the German Democratic Republic, and by 1.6 per cent in Poland. The negative growth of agricultural output in 1979 was apparently offset by further declines in the farm labour force, and labour productivity in most countries stayed at about the level of 1978.

In 1979 the acreage of agricultural land in eastern Europe was the same as in 1975 (see table 2.3). It has increased slightly since that year in the Soviet Union (by about 0.7 per cent). The stock of agricultural land in per capita terms continued to slow down in all countries because of the population increase.

The arable land area in the whole region has increased since 1975 by about 0.7 per cent. Arable land per capita has declined in all countries but the German Democratic Republic, where there was some decline in the population. Further expansion of the arable area is envisaged only in Romania, though only on a very small scale. The Soviet Union, which has the largest reserves for a possible increase, is emphasizing policies to stabilize and increase yields, rather than increase the cultivated area.

TABLE 2.3

Distribution of agricultural land

(*Thousand hectares*)

Country and period	Agricultural land	Arable land	Area under grain		Land reclamation	
			Total	of which: wheat	Irrigated land	Drained land
Bulgaria						
1976	6 198	3 715	2 334	918	1 147	
1977	6 206	3 722	2 305	910	1 148	
1978	6 215	3 737	2 207	934	1 168	
1979	6 198	3 736	2 301	955	1 185	
Czechoslovakia					a	a
1976	6 990	4 907	2 830	1 278	18.8	53.4
1977	6 976	4 307	2 829	1 287	17.0	55.4
1978	6 952	4 891	2 841	1 274	16.0	56.0
1979	..	..	2 767*	1 111	19.4	61.2
German Democratic Republic						
1976	6 293	4 752	2 672	768	720	1 236
1977	6 291	4 771	2 575	732	805	1 325
1978	6 282	4 776	2 594	686	886	1 397
1979	6 280	4 767	2 552	713	954	1 463
Hungary						
1976	6 757	5 108	3 160	1 325	320	42
1977	6 730	5 071	3 071	1 311	298	49
1978	6 698	5 045	3 050	1 324	181	45
1979	..	..	2 955*	1 138*	..	..
Poland						
1976	19 151	14 763	7 968	1 832	500	3 540
1977	19 111	14 739	8 181	1 834	508	3 625
1978	19 059	14 710	8 035	1 852	511	3 711
1979	..	..	8 040*	1 549	..	..
Romania						
1976	14 955	9 760	6 351	2 429	1 729	..
1977	14 960	9 781	6 308	2 309	1 854	..
1978	14 964	9 803	6 317	2 324	2 065	..
1979	..	..	6 303	2 144	2 263	..
Soviet Union						
1976	551 058	225 696	127 760	59 467	15 300	14 413
1977	552 558	225 999	130 344	62 030	16 000	15 143
1978	552 653	226 174	128 465	62 898	16 800*	16 100*
1979	..	..	129 710*	57 756*	17 660*	16 950*
Byelorussian SSR						
1976	9 794	6 141	2 766	151	170	2 381
1977	9 782	6 170	2 856	153	156	2 467
1978	9 759	6 182	2 864	170	175	2 553
1979	..	..	3 044	165	..	..
Ukrainian SSR						
1976	42 173	34 269	15 942	4 651	1 650	2 146
1977	42 133	34 263	17 354	8 658	1 767	2 251
1978	42 100	34 242	16 692	8 286	1 840	2 242

Sources: As for table 2.2. a Annual increase in area irrigated or drained.

Policy measures have been taken in most countries to limit further declines in the land stock. Agricultural legislation has been modified to reduce losses of high quality land to non-agricultural activities. Following a decision of the March 1979 Party Plenary Session in Bulgaria, a new system of land taxation is to be established based on the economic evaluation of agricultural land. The tax will vary from 9 to 135 leva per hectare (95 leva per hectare on average). For land unused since 1971, the tax will be doubled. In Hungary, new regulations have tightened up the conditions for withdrawing farm land from cultivation; and incentives will be given to industrial developers of land to give preference to the use of land of poor agricultural quality to encourage the full exploitation of existing farmland. Agricultural co-operatives will henceforth be permitted to lease land unfit for large-scale exploitation to members and others for up to 15 years. Local councils would also be permitted to grant long leases to individuals on plots with a minimum area of 500 square metres (instead of the previous 1,500 square metres minimum). Some changes in land legislation have also been introduced in Czechoslovakia with similar ends in view.

All east European countries and the Soviet Union have paid more attention in the current five year period to improving the utilization of cultivated land. An important element in these policies has been the stress laid upon irrigation and drainage. In the Soviet Union,

Gross increase in drained and irrigated land in eastern Europe and the Soviet Union

	Bulgaria	*German Democratic Republic*	*Hungary*	*Poland*	*Romania*	*Soviet Union*
Annual average increment of improved land in 1976-1978 (thousand ha.)	13.3[a]	168.3	9.7	92.7	18.0[a]	1 583
Share of improved land in total arable land (per cent)						
1975	30.5	37.8	3.8	27.2	14.6	12.5
1978	31.3	47.8	4.5	28.7	21.1	14.6

Sources: As for table 2.1. [a] Irrigated land only.

a prime objective is to reduce annual fluctuations in output by increasing the share of irrigated and drained land, which are less susceptible to fluctuations in yields due to variations in the weather from year to year (see text table above).

The share of improved land as a percentage of the total arable land area ranged in 1978 from 4.5 per cent in Hungary to 47.8 per cent in the German Democratic Republic. Bulgaria, Hungary and Romania paid more attention to irrigation, while Poland and the German Democratic Republic stressed drainage works.

In the Soviet Union, irrigated and drained land increased by about the same amounts; large areas were also limed. There have been some changes in the geographical distribution of Soviet land improvement activity. In addition to irrigation in the cotton-growing regions of Central Asia and drainage schemes in the Baltic Republics, large-scale works have been put in hand in the Volga and North Caucasus regions, in the Ukraine and Moldavia. However, first priority was given in 1979, as in the previous years of the present plan period, to the land reclamation programme in the Non-Black Earth Zone. Since 1975, the drainage or irrigation of 1.15 million hectares has been carried out. Another 1.71 million hectares of pasture land were improved, 1.53 million hectares of other land were limed and 3 million hectares treated with mineral fertilizers and manure. These lands are intended as a basis for the creation of large-scale, specialized and high productivity crop and animal farms, as well as new industries. Some problems have arisen. In November 1979, 62 per cent fulfilment of the investment plans for land reclamation in the Non-Black Earth Zone was announced, and shortcomings in construction, in the mechanization of work and in organization, together with lack of skilled workers were cited as responsible.[52]

The extension of the area of improved land changes the structure of crop production. In 1978 for example, Soviet farmers obtained 27 per cent of total crop production from the 8 per cent share of the total arable land area which is irrigated. Irrigated sown areas were distributed between: fodder crops—41 per cent, industrial crops—26 per cent, grain crops—25, and vegetables and potatoes—8 per cent. Some 45 per cent of drained land was sown to grain and 45 per cent to fodder crops.[53] The countries of the region are increasingly looking to second harvest and intertillage crops as an additional source of output—particularly of green fodder.[54]

The volume of gross agricultural output per hectare of arable land in 1979 was below 1978 levels in most countries with the exception of Romania and Bulgaria, but in 1976-1979 it was higher than in 1971-1975 in all countries (see text table below).

Index of gross agricultural output per hectare of arable land in 1976-1979

(*1971-1975 = 100*)

Bulgaria	109.4
Czechoslovakia	109.1
German Democratic Republic	101.6
Hungary	116.6
Poland	105.7
Romania	125.6
Soviet Union	108.2

Sources: As for table 2.1.

For most countries, data for *investments* in agriculture are available only for the first three years of the current five-year-plan period (see table 2.4).

However, in the Soviet Union the modest growth target (0.6 per cent) was over-fulfilled, the actual increase amounting to 2 per cent. In the German Democratic Republic, agricultural investment declined by nearly 3 per cent. Apart from the Soviet Union, the volumes and annual changes varied considerably by years in the countries of the region. On average, annual investments in all countries during 1976-1978 increased in comparison with 1971-1975, the increment ranging between 11.1 per cent in the German Democratic Republic and 50.1 per cent in Poland. The share of machinery and equipment rose in Bulgaria and the Soviet Union but fell in Czechoslovakia and the German Democratic Republic (see text table on next page).

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[52] V. Posokhov, V. Shvetsov, *Pravda*, 20 November 1979.

[53] V. Ivashchenko, A. Spitsin, "Indicators of the efficient use of improved land", *Planovoe Khozyaistvo*, 1979, No. 10, pp. 96-97.

[54]

Share of double cropping in the total sown area

(*Total sown area = 100*)

	1975	*1978*
Bulgaria	7.6	11.7
Czechoslovakia	1.7	3.1
German Democratic Republic	12.4	15.0
Hungary	1.0	1.3
Poland	8.9	5.5
Romania	9.0	7.0
Soviet Union	1.3	0.8

Source: CMEA Statistical Yearbook.

Agricultural investments indices in 1976-1978

(1971-1975 = 100)

	Bulgaria	Czechoslovakia	German Democratic Republic	Hungary	Poland	Romania	Soviet Union
Total	122.7	131.6	111.1	115.6	150.1	148.3	126.0
In machinery and equipment	152.2	124.9	108.2	..	..	..	137.1

Sources: As for table 2.1.

The share of agricultural investments in total investment and in investments in the material sphere are the highest in the Soviet Union where they include not only agriculture but certain agriculture-related activities (such as farm expenditure on rural roads, etc,); their share increased in Poland and in Czechoslovakia, declined in Bulgaria, the German Democratic Republic and in Romania and was relatively stable in the Soviet Union and Hungary (table 4.7).

The share of agriculture in total *fixed assets* in the material sphere ranged between 12-15 per cent in Romania, the German Democratic Republic and Czechoslovakia, about 18-19 per cent in Bulgaria and Hungary and 21-25 per cent in the Soviet Union and Poland (see table 2.4). During the first three years of the current five-year-plan period, rates of growth of fixed assets were higher than during 1971-1975 only in Bulgaria, Czechoslovakia and in Poland. The growth in machinery and equipment in the periods under discussion changed in line with the rates of growth of total agricultural fixed assets in Czechoslovakia, Poland and in Hungary. In Bulgaria the trends of the two diverged, which reflects partly an increase in the share of buildings in total fixed assets, and partly delays in the replacement of obsolete machinery and equipment (see text table above).

Capital intensity, in terms of fixed assets per hectare of arable land and fixed assets per employee continued to rise, as in 1971-1975, during the first three years of the current quinquennium. The rate of change of fixed assets per hectare of arable land slackened, however, in all countries but Bulgaria and Poland; in Bulgaria, fixed assets rose faster than in the previous plan period, and at about the same rate in Poland. The capital intensity of labour increased as a rule faster because of the slower growth of agricultural employment, but the average annual rate of increase slackened in most countries in 1976-1978. In Bulgaria the trend is difficult to discern because of fixed asset classification changes. In the Soviet Union, as noted in a previous section, the rate of decline in agricultural employment has accelerated in recent years and brought about a large increase in fixed assets per worker (see text table below).

Changes in agricultural fixed assets

(Annual percentage change)

	Bulgaria	Czechoslovakia	German Democratic Republic	Hungary	Poland	Romania	Soviet Union
Total							
1971-1975	6.6	5.8	5.0	8.5	4.9	9.5	9.5
1976-1978	9.4	7.0	4.8	6.2	5.2	8.7	8.1
Machinery and equipment only							
1971-1975	5.2	7.1	5.3	15.4	8.9	..	..
1976-1978	5.0	8.3	..	12.1	13.5	..	..

Sources: As for table 2.1.

Capital intensity indices

(1968-1972 = 100)

	Bulgaria	Czechoslovakia	German Democratic Republic	Hungary	Poland	Romania	Soviet Union
Fixed assets per hectare of arable land							
1975	135	134	125	151	129	154	156
1978	176	165	141	185	150	197	196
Fixed assets per employee							
1975	167	149	142	172	130	197	161
1978	248	191	168	215	149	290	216

Sources: As for table 2.1.

TABLE 2.4

Investment and fixed assets in agriculture

Country and period	*Investment*		*Percentage of*		*Fixed assets*	
	Total (in millions of total currency units; at constant prices)	*Annual percentage change*	*Total investment*	*Investment in material sphere*	*Total (in millions of total currency units; at constant prices)*	*Percentage of total fixed assets in the material sphere*
Bulgaria						
1976	788	0.9	14.1	19.8	6 203	18.4
1977	873	10.8	14.2	18.9	6 924	18.9
1978	787	−9.8	12.7	16.9	7 600	19.1
1979	778	−1.2	12.9	17.0	7 961	16.9
Czechoslovakia						
1976	14 420	−1.1	10.9	14.3	169 222	14.8
1977	15 322	6.3	11.0	15.0	180 362	14.9
1978	16 295	6.4	11.2	15.3	192 105	15.0
German Democratic Republic						
1976	5 089	2.2	11.3	14.0	50 256	12.9
1977	5 301	4.2	11.1	13.9	52 670	12.8
1978	5 150	−2.8	10.5	12.9	55 387	12.8
1979	5 000	−2.9	10.0	12.7	57 970	12.7
Hungary [a]						
1976	21 087	−6.7	13.9	17.4	270 956	19.0
1977	23 743	9.7	13.1	16.2	286 400	18.9
1978	26 893	13.3	13.6	16.8	302 800	18.8
Holand						
1976	92 484	2.1	14.8	18.8	1 088 000	25.6
1977	105 642	16.6	16.2	21.4	1 168 000	25.0
1978	105 868	0.2	15.9	21.5	1 251 000	24.7
Plan 1979	106 700	..	18.1	..	..	..
Plan 1980	90 700 [a]	..	15.1	..	..	..
Romania						
1976	21 868	12.5	14.4	17.7	148 401	12.0
1977	24 505	12.0	14.5	18.0	164 335	12.0
1978	27 302	11.4	13.9	17.0	176 331	15.2
Plan 1979	24 100 [b]	..	10.3	..	..	..
Plan 1980	29 900 [b]	..	..	..	..	..
Soviet Union						
1976	32 100	4.2	27.2	36.8	180 000	20.7
1977	33 300	3.7	27.2	36.9	194 000	20.8
1978	34 600	3.9	26.7	36.0	211 000	21.0
1979	35 300	2.0	27.0	..	..	..
Plan 1980	37 000	4.8	27.3	..	..	..
Plan 1976-1980	171 700	3.7	27.0	..	..	..
Byelorussian SSR						
1976	1 363	0.5	34.9	..	6 793	19.0
1977	1 422	4.3	34.1	..	7 409	19.2
1978	1 465	3.0	33.4	..	8 108	19.4
1979	1 494	2.0	..	..	..	..
Ukrainian SSR						
1976	4 905	0.6	27.6	..	35 000	23.2
1977	5 013	2.2	27.3	..	37 000	22.8
1978	5 234	4.4	26.7	..	40 000	23.0
1979	5 300	1.3	..	..	..	..
Plan 1980	5 000	2.0	..	..	..	..
Plan 1976-1980	25 000	0.4	..	..	..	..

Sources: As for table 2.1.

[a] Not comparable with previous year.

[b] Prices from 1 January 1979.

Deliveries of tractors in 1979, expressed in physical units, were slightly below the 1978 level in all countries which have published data except for Bulgaria. Deliveries of grain combines increased in Czechoslovakia and the Soviet Union, but were below the 1978 level in Bulgaria, the German Democratic Republic and in Romania (see table 2.5). All countries reported an increase in their stock of sugar-beet, potato and maize harvesting combines.

The stock of tractors in physical units stagnated but continued to increase in terms of motor horsepower. Agricultural land per tractor increased slightly in Bulgaria, Czechoslovakia and Hungary but decreased in all other countries. The capacity of tractors in terms of horse power per physical unit has increased since 1975 in all countries but Poland (see text table below).

Average tractor power

(*In horsepower*)

	Bulgaria	*Czecho-slovakia*	*German Democratic Republic*	*Hungary*	*Poland*	*Romania*	*Soviet Union*
1975	49.2	54.2	54.2	56.5	37.7	61.6	65.3
1978	59.0	60.0	60.2	67.5	37.0	62.7	71.2

The annual average increase in tractor horsepower accelerated since 1975 in Bulgaria and Hungary, by 6.2 and 6.1 per cent respectively. In 1970, Romania had the highest average tractor horsepower—58.3 hp per unit, but in 1978 the Soviet Union and Hungary ranked first and second with 71.2 and 67.5 hp per unit respectively. Polish farmers are equipped mainly with small tractors, in accordance with the technical requirements of small-scale private farming. A further increase in average tractor power can be expected in the next five years in the Soviet Union, where agriculture will be supplied with 1.9 million new tractors with a total capacity of 182 million hp (i.e. an average of 97.3 horsepower per tractor). Prototype tractors of the K700 type, which have an engine capacity of 450-500 horsepower, are being developed in the Soviet Union together with track-laying tractors rated at 250 horsepower and universal ploughing tractors of 150 horsepower. The "Niva" and "Kolos" grain harvesting combines are in course of modernization in order to bring up their processing capacity to 6.5 and 9 kilograms per second respectively.

The production and supply of spare parts for agricultural machinery still present problems. A new system of guaranteed supply of spare parts is under way on an experimental basis in the Soviet Union; the "guarantee" system has been organized in the Byelorussian SSR, the Estonian SSR, and in the Uzbekistan SSR, and has also been extended to a number of provinces in the RSFSR.

The rate of increase in the production and delivery of *mineral fertilizers* to agriculture slowed down somewhat in 1979. Production of fertilizers increased by an annual average of 3.5 per cent during 1976-1978, to a total of 36.6 million tons (nutrient content) in the latter year (tables 2.6 and 2.7). Total consumption of mineral fertilizers in the region increased during the same period by an annual average of only 2 per cent, considerably more slowly than during 1971-1975.

Czechoslovakia and the German Democratic Republic now apply more than 350 kilograms of mineral fertilizers per hectare of arable land. In Bulgaria, Hungary, and Poland applications range between 221 and 280 kg/ha, while in Romania and the Soviet Union they now stand at 146 and 82 kg/ha respectively. Preliminary estimates suggest that only Czechoslovakia, Poland and the Soviet Union will attain the five-year-plan target for deliveries of fertilizers to agriculture in 1980.

The region as a whole is a net exporter of fertilizers, sales rising from 5.1 million tons in 1975 to 7.1 million tons in 1978. Poland, Czechoslovakia, Hungary and Bulgaria were net importers. The biggest exporter in 1978 was the Soviet Union (5.2 million tons), the German Democratic Republic (3 million tons), and Romania (1 million tons). All countries were net exporters of nitrogenous fertilizers in 1978, the bulk originating in the Soviet Union and Romania. Hungary, Czechoslovakia, Bulgaria and the German Democratic Republic were net importers of phosphate fertilizers, and the other three countries were net exporters. The German Democratic Republic and the Soviet Union are among the world's biggest net exporters of potash.

With regard to *plant protection chemicals*, Bulgaria ranks first in the region in terms of consumption with an average application rate in 1979 of 11.6 kg/ha. Application rates in the German Democratic Republic during 1978 were 5.6 kg/ha and in Czechoslovakia, 3.4 kg/ha. By 1980, they are expected to rise to 9.2 and 2.3 kg/ha respectively in Romania and the Soviet Union.

Inter-CMEA trade in mineral fertilizers is organized under joint programmes for co-operation and specialization, bilateral and multilateral long-term agreements. Contracts have been concluded within the CMEA framework for research, production and trade in fertilizers as well as in plant protection materials and microbiological products for agriculture.

Consumption of *electricity* at 573 kwh/ha of arable land was the highest in the German Democratic Republic in 1978. In Czechoslovakia, Hungary and Poland it ranged between 370-227 kwh/ha, and in Romania, the Soviet Union and Bulgaria between 174-160 kwh/ha.

TABLE 2.5

Stocks and deliveries of agricultural machinery

(Thousand machines)

Country and period	*Stocks of tractors* *Physical units*	*Stocks of tractors* *Motor hp (in million hp)*	*Stocks of tractors* *Agricultural land in hectares per tractor (physical units)*	*Stocks of tractors* *Motor hp per 100 hectares of arable land*	*Deliveries* *Tractors*	*Deliveries* *Grain combines*
Bulgaria						
1976	65.5	3.5	95	95	6.2	1.1
1977	65.0	3.7	96	99	6.7	1.5
1978	64.4	3.8	97	102	3.7	1.0
1979	63.4	3.9	98	103	4.0	0.8
Czechoslovakia						
1976	141.1	7.9	49	161	6.1	2.1
1977	140.0	8.1	50	165	7.1	2.1
1978	140.0	8.4	50	172	8.9	1.2
1979	..	..	..	..	7.5	1.3
German Democratic Republic						
1976	137.7	7.7	46	162	8.5	1.6
1977	137.4	7.9	46	166	9.3	0.9
1978	139.5	8.4	45	176	8.4	0.4
1979	145.8	9.1	43	192	7.7	0.3
Hungary						
1976	59.5	3.6	114	70	5.0	2.1
1977	58.7	3.7	116	73	4.7	2.0
1978	56.3	3.8	119	75	4.2	2.2
Poland						
1976	444.0	16.0	43	110	44.4	3.6
1977	482.0	17.7	40	122	53.7	3.8
1978	525.0	19.4	36	133	58.5	4.0
1979						
Plan 1980	..	..	..	..	57.6	3.9
Romania						
1976	128.0	7.9	117	81	11.9	5.6
1977	138.5	8.6	108	88	13.1	4.7
1978	138.8	8.7	107	89	14.8	3.7
1979	140.0	..	..	..	14.5	2.6
Plan 1980	..	..	..	..	14.8	6.4
Soviet Union						
1976	2 400	162.7	230	73	368.6	97.5
1977	2 458	170.9	225	77	364.6	100.8
1978	2 515	179.1	220	80	370.6	111.2
1979	..	..	..	..	354.0	112.0
Plan 1980	2 720	..	..	..	344.0	112.0*
Byelorussian SSR						
1976	105.9	5.9	92	97	15.4	3.9
1977	109.0	6.3	90	103	15.4	3.5
1978	112.3	6.7	87	108	17.4	3.8
1979	..	..	..	..	15.8	4.0
Plan 1980	..	..	..	..	14.7	4.2
Ukrainian SSR						
1976	382.9	24.8	110	72	53.7	15.2
1977	391.0	26.0	108	76	54.4	11.8
1978	399.4	27.2	105	79	53.7	14.1
1979	..	..	..	..	52.0	14.0
Plan 1980	..	..	..	..	51.0	13.0

Sources: As for table 2.1.

TABLE 2.6

Supplies of chemical fertilizers and plant protection chemicals and consumption of electricity in agriculture

Country and period	*Fertilizer supplies (in pure nutrient content)*		*Supplies of plant protection chemicals*		*Consumption of electricity in agriculture*	
	Total (thousand tons)	*kg/ha of arable land*	*Total (tons)*	*kg/ha of arable land*	*Total in GWh*	*KWh per ha of agricultural land*
Bulgaria						
1976	658	177	23 352	6.3	999	161
1977	742	199	26 286	7.1	924	149
1978	738	198	35 283	9.4	988	160
1979	825	221	41 312	11.6	1 118	180
Plan 1980	930*	250	..	..	..	..
Czechoslovakia						
1976	1 674	341	..	..	2 473	354
1977	1 633	333	..	..	2 584	370
1978	1 748	357	..	..	..	..
Plan 1980	1 760*	370	..	..	..	..
German Democratic Republic						
1976	1 804	380	23 665	5.0	3 500	556
1977	1 670	350	24 502	5.1	3 497	556
1978	1 670	350	25 298	5.3	3 600	573
1979	1 719	361	26 715	5.6	..	..
Plan 1980	2 120	450	..	..	..	..
Hungary						
1976	1 388	254	..	..	1 751	259
1977	1 511	279	..	..	1 888	281
1978	1 539	286	..	..	2 062	308
1979	1 500*	280*	..	..	..	..
Plan 1980	1 700	337*	..	..	..	..
Poland						
1976	3 671	249	51 096	3.5	3 470	181
1977	3 586	243	57 102	3.9	3 958	207
1978	3 606	246	49 765	3.4	4 325	227
1979	3 567	..	..	..	..	..
Plan 1980	3 770	256	..	..	..	..
Romania						
1976	1 144	117	..	..	2 521	169
1977	1 128	115	..	..	2 481	166
1978	1 480	151	..	..	2 610	174
1979	1 431	146*	..	..	..	..
Plan 1980	2 113	..	59 000	9.3*	..	..
Soviet Union						
1976	17 739	80	..	..	82 979	151
1977	18 034	81	..	..	88 367	160
1978	18 420	83	..	..	95 642	173
1979	18 279	81	..	..		
Plan 1980	20 518	90	512 000	2.3*	130 000	235
Byelorussian SSR						
1976	1 523	263	..	..	2 624	268
1977	1 506	260	..	..	2 768	283
1978	1 504	244	..	..	2 962	302
1979	1 480	239	..	..	..	..
Ukrainian SSR						
1976	3 763	110	..	..	15 285	362
1977	3 847	113	..	..	15 387	365
1978	3 796	112	..	..	16 681	396
1979	3 576	105	..	..	..	..

Sources: As for table 2.1.

TABLE 2.7

Mineral fertilizers: production and consumption in thousands of tons, nutrient content
(Percentage distribution; total = 100)

	Bulgaria	*Czechoslovakia*	*German Democratic Republic*	*Hungary*	*Poland*	*Romania*	*East European countries*	*Soviet Union*	*East European countries and the Soviet Union*
Production									
1975	626	1 089	3 984	704	2 581	1 729	10 713	21 998	32 711
1978	683	1 229	4 628	1 023	2 621	2 461	12 645	23 653	36 298
Domestic consumption									
1975	679	1 604	1 826	1 518	3 460	1 196	10 283	17 251	27 534
1978	738	1 748	1 670	1 539	3 606	1 480	10 781	18 420	29 201
Surplus (+) Deficits (−)									
1975	−53	−515	2 158	−877	−879	533	367	4 747	5 114
1980	−55	−519	2 958	−516	−985	981	1 864	5 233	7 097
Percentage distribution by kind of fertilizer									
Production									
N_2 1975	60.7	45.5	13.5	61.8	59.4	74.7	43.9	38.8	40.5
1978	58.6	50.9	19.3	59.5	56.1	70.0	45.2	39.3	41.4
P_2O_5 1975	39.3	39.0	10.7	29.2	36.0	23.4	24.8	25.1	25.0
1978	41.4	33.5	8.9	27.2	39.2	26.8	24.3	26.0	25.4
K_2O_3 1975	—	15.5	75.8	8.9	4.6	1.9	31.3	36.1	34.5
1978	—	15.6	71.8	13.3	4.7	3.2	30.5	34.6	33.2
Consumption									
N_2 1975	55.9	31.8	37.1	35.3	33.0	65.9	39.3	42.5	41.3
1978	51.0	35.9	47.0	37.0	34.7	55.0	41.1	41.6	41.4
P_2O_5 1975	36.8	26.6	24.2	28.3	25.6	28.2	26.9	27.4	27.2
1978	44.6	26.6	25.8	26.6	26.3	35.3	28.8	29.1	29.0
K_2O_3 1975	7.3	41.6	38.7	36.4	41.4	5.9	33.8	30.1	31.5
1978	4.4	37.5	27.2	36.4	39.0	9.2	30.1	29.3	29.6

Source: CMEA Statistical Yearbook.

Contribution of private auxiliary farming in agricultural output and in peasants' incomes
(Percentages)

	Bulgaria	*Czechoslovakia*	*German Democratic Republic*	*Hungary*	*Soviet Union*
1. Share in gross agricultural output	38 (1976)	11 (1975)	10 (1975)	More than one-third (1975)	28 (1971-1975)
2. Share in peasants' income	28 (1975)	..	..	40 (1975)	25 (1977)

Source: G. Djachkov, A. Sorokin, "The role of private auxiliary farming", *Ekonomika sel'skogo khozyaistva*, 1980, No. 1.

The continuous rise in energy consumption in agriculture in all countries has resulted in the promulgation of economy measures, but growing mechanization of crop and particularly animal production is likely to increase energy consumption further. A Soviet resolution adopted in February 1979 [55] provides for increases in the volume of electric power consumption in agriculture to between 170 and 190 billion kilowatt hours in 1985, which will augment the amount of electric power available per worker in agricultural production by 60 to 80 per cent.

(iii) Private auxiliary farming

All countries are paying increased attention to the development of *private auxiliary farming*. Although its share in gross agricultural production is declining, private household plots in all countries make a substantial contribution to total supplies, especially in livestock production and in the output of crops which require labour intensive methods of cultivation.

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[55] "On measures for the further development of agricultural electrification", *Ekonomicheskaya Gazeta*, No. 9, 1979.

The private household plots exist in a symbiotic relationship with the socialist sector. On the one hand, they draw into the production process land, labour and material resources that are not effectively used by the large-scale socialzed sector farms, and in turn supply them with certain inputs. They, in their turn, are supported by the State and co-operative farms with machinery, fertilizers, seeds, animal breeding stock, fodder and veterinary services.

The private household plots occupy about 12 per cent of total agricultural land in the east European countries, excluding Poland, where about 78 per cent of agricultural land is cultivated in individual peasant holdings.[56] The share of private household plots in the Soviet Union is only 1.5 per cent of the total agricultural land. In both eastern Europe and the Soviet Union, their share of arable land is somewhat higher. Family labour resources are mobilized for the production of commodities for family needs and for the market—either in the form of direct sales to the public, or through contract arrangement with co-operative retail outlets.

In crop farming, private household plots produce grain for fodder, vegetables, potatoes, and fruit. In 1976, they produced 62 per cent of potatoes and 27 per cent of vegetables in the Soviet Union. In Hungary, they produced 50 per cent of the fruit, 58 per cent of grapes and approximately 40 per cent of vegetables in 1975. In Bulgaria, private household plots produced 13 per cent of total grain production, 21 per cent of feed grain, 22 per cent of vegetables, 50 per cent of potatoes, 34 per cent of root plant crops, 41 per cent of fruit, and 38 per cent of grapes in 1977.

The percentage share of animals held in private household plots in total livestock has declined constantly since 1970 in the east European countries and the Soviet Union, though their absolute level has remained fairly stable. The share of privately owned cattle declined from 30 per cent of the total herd in 1970 to 25 per cent in 1975 and to 22 per cent in 1978 in eastern Europe (excluding Poland),[57] and in the Soviet Union from 25 per cent in 1970 to 21 per cent in both 1975 and 1978. The share of privately owned livestock in total livestock is considerable in Romania, Bulgaria, Hungary and the Soviet Union but very modest in the German Democratic Republic and Czechoslovakia (see text table below).

Private household plots produce meat, milk and eggs partly for family needs. In 1976-1978 personal household plots in the Soviet Union produced 30 per cent of the total meat supply (of which about one-half was marketed), 30 per cent of milk (of which 11 per cent was marketed), 36 per cent of eggs (of which 13 per cent was marketed), and 20 per cent of wool (of which over 90 per cent was marketed). In the same period the shares of personal household plots in total procurements of meat in Bulgaria was 41 per cent, milk 24, eggs 50, and wool 21 per cent. Private household plots in Hungary produce 45 per cent of livestock output, of which half is sold on a contract basis.

(iv) Policies promoting agricultural development

The main policy emphasis in all countries of the region is directed towards achieving a more intensive use of resources to raise over-all and especially livestock production, while cutting down on present import levels of the farm sector's current inputs. Improvements in the contribution of the food-processing industries to the balance of payments has also been called for in some countries, implying increased attention to food exports. Special plenary sessions of the party have taken place in Hungary and the Soviet Union (1978), and in Bulgaria, Czechoslovakia and Romania (1979), where current and long-term

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[56] Individual peasant holdings in Poland occupied the following share of agricultural land in 1979: up to 2 hectares—30.5 per cent; from 2 to 5 hectares—30.2 per cent; from 5 to 10 hectares—25.6 per cent; and more than 10 hectares—13.7 per cent. (*Source: Statistical Yearbook of Poland.*) Measures were taken to create specialized individual farms and to concentrate land through co-operation.

[57] The share of livestock in individual peasant holdings in total Polish livestock in 1978 was: cattle—73.9 per cent; cows—87.1 per cent; pigs—74.9 per cent; sheep and goats—61.1 per cent. (*Source: Statistical Yearbooks of Poland and the CMEA.*)

Share of livestock in private households as percentage of total livestock in countries of the region

	Bulgaria	*Czechoslovakia*	*German Democratic Republic* [a]	*Hungary*	*Romania*	*Soviet Union*
Cattle						
1975	23.7	6.5	0.8	29.9	43.2	21.1
1978	22.0	3.9	0.9	26.3	40.5	20.6
Pigs						
1975	30.5	10.7	2.5	51.1	27.2	21.1
1978	25.7	7.6	2.6	52.3	27.2	21.6
Sheep and goats						
1975	41.5	42.5	8.5	11.8	47.5	19.9
1978	37.6	38.7	9.6	12.5	43.6	20.1

Source: CMEA Statistical Yearbook.

[a] Livestock in private households of persons who are not members of agricultural co-operatives only.

developments in the agricultural sector were discussed in detail.

Action has been taken in the Soviet Union to promote the development of farm mechanization—especially in the livestock industry and also in the cultivation of sugar-beet and some industrial crops. Other provisions will promote the development of the mixed feed industry, the production of feed additives, and also of the plant protection and microbiological product industries. Other decisions concern livestock rearing, maize selection and seed reproduction.[58]

Measures have also been taken to improve the economic and financial position of collective and State farms; debts were written off and other repayments postponed to a value of more than 11 billion roubles. Farm incomes were increased by over 3 billion roubles as a result of producer price rises introduced at the beginning of 1979 (see below, p. 145).

Stress continues to be laid on the development of joint (inter-farm) production units. About 9,000 of these specialized enterprises were in operation in 1979, of which about 3,100 for construction and construction materials, and 1,500 for animal and poultry farms. Some institutional innovations have been made. A new specialized Ministry of Agricultural Construction was established in 1979. The production of livestock raising equipment, mixed feed and micro-biological products for agriculture are now managed and planned as separate branches. A new State corporation for agrochemical services was established in 1979. On the planning side, State procurement targets at firm, regional and Union-Republican level will be decided in advance for each year of the new five-year plan.

In Bulgaria, a decision on management and planning in agriculture was adopted in March 1979.[59] This provided for some decentralization of planning. Beginning in 1979, the agro-industrial complexes—which are the basic economic organizations in Bulgarian agriculture—will plan their activities on the basis of only four fixed, compulsory targets handed down by the central authorities. These are: commodity quotas, expressed in physical units, for obligatory sales to the State; new norms in respect of payment out of profits to the State budget, and for payments into the fund for "development and technological improvement"; the setting of targets for the value of imports for agricultural use, and for exports of produce; and objectives for economizing the use of basic materials, equipment and energy. The Ministry of Agriculture and Food Industry was reorganized in March 1979. A National Agro-Industrial Union was set up; this will henceforth serve as the representative body for its members—co-operative and State-run agricultural enterprises.

In Czechoslovakia the March 1979 Party Plenary Session stressed the attainment of self-sufficiency in grain production and increases in the share of domestically produced food in total supplies—particularly in respect of reductions in imports of grain, sugar and vegetable oils.[60] The recent movement to merge farm enterprises has now ceased, and attention will be paid to their internal consolidation and restructuring.

In the German Democratic Republic, agricultural policy is also directed to increasing self-sufficiency in crop production (at present about 20-25 per cent of grain requirements are imported). The land improvement programme envisages the irrigation of 50 per cent of total arable land by 1990.[61] Again, efficiency in the use of resources is emphasized.[62] Specific measures include the implementation of the silo construction programme which is expected considerably to reduce losses of crude fodder.[63]

In Hungary a Special Party Plenary Session in 1978 pointed out that production of coarse fodder, certain industrial crops and vegetables as well as sheep rearing, have failed to attain required levels. The lack of balance between production, processing, cold storage facilities and marketing, was underlined. Special attention was paid to maize, pig and poultry rearing and better use of fodder.

Since 1970, Hungary has concentrated on developing industrial-type production units, which now number 70 in all. They cultivate more than 33 per cent of arable land; in 1977, they accounted for 64 per cent of the total area sown to maize in State and co-operative farms, 39 per cent of wheat, 15 per cent of sugar beet, and 57 per cent of sunflower acreages. In the same year, 35 per cent of milk cows, 43 per cent of slaughter livestock, and 60 per cent of sows were located in these enterprises, and yields and efficiency were considerably higher in comparison with farms of other kinds.

The system of long-term contracts for the supply of agricultural produce, which covered 43 per cent of agricultural output in 1978, is to be strengthened. A mixture of short- and long-term contracts will continue to dominate transactions between private household production sold to co-operative and State farms and enterprises. With regard to the introduction of competitive pricing announced for the beginning of 1980, it was recognized that this could not be applied to the agricultural sector. Certain other privileges will be extended to the farm sector. From 1 January 1980 State support for large farm investment projects is to be reduced, but farms will pay the lowest (7 per cent) rate of interest for credit. Moreover State support of up to 40 per cent of cost may be granted for the construction of cattle, pig and sheep raising enterprises.

The key problem in Polish agricultural policy at this stage is the reduction of agricultural imports.[64] The attainment of a higher degree of self-sufficiency in agricultural products could provide an important offset to the high level of external claims on foreign currency earnings

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[58] L. Brezhnev, Report on the CC of the CPSU Plenary Session, *Pravda*, 3 July 1978; *Ecotass*, No. 30, 24 August 1978.

[59] T. Bozhinov, Report on the Plenary Session of the BCP Central Committee, *Rabotnichesko Delo*, 6 March 1979.

[60] Report of the Presidium of the CPC Central Committee on the Implementation of the Conclusions of the 15th Congress and the Future Tasks in Agriculture and the Food Industry, *Rudé Právo*, 23 March 1979.

[61] Law on the Five-Year Plan 1976-1980, *Gesetzblatt der DDR*, I No. 46, 1976.

[62] Report by the Politburo to the SED Central Committee, 11th Session, *Neues Deutschland*, 13-14 December 1979.

[63] *Neues Deutschland*, 15 October 1979; *Bauern-Echo*, 13 and 17 December 1979.

[64] Report of the Central Committee to the 8th Congress of the PUWP, *Trybuna Ludu*, 12 February 1980.

(debt service ratio). Under the provisions of a long-term development programme to 1990, Poland will concentrate on cutting imports of grain and fodder and move to balance its foreign trade in farm production.[65] General measures have been announced to increase the supply of materials and improve the qualifications of farm workers. Policy continues to emphasize the leading role of State farms, which occupy some 17 per cent of the arable land. They will continue to supply the bulk of high quality seeds, breeding livestock and other inputs to co-operatives and to the private farm sector, which numbered some 118 thousand holdings in 1979.

In February 1979 the Romanian Party Plenary Session adopted a decree of which the object was to improve the planning and management of agriculture, and to establish general State and co-operative agro-industrial councils in order to increase agricultural output.[66] These councils now number some 709, and cover agricultural machinery organizations, State and co-operative farms, specialized inter-farm enterprises, agricultural raw material processing enterprises, scientific research, and the selection and training of key workers, etc. Within the councils, the various farms and other enterprises and organizations can better co-ordinate their activities while at the same time maintaining their independent role in plan determination and fulfilment.

Producer and procurement prices of agricultural production were adjusted in several countries in 1979 to compensate for increasing costs of production, and also in accordance with policies to reduce budget subsidies to enterprises and to facilitate the establishment of cost-accounting systems in agriculture. In the Soviet Union, State procurement prices were raised for milk, cream and butter (all by 14 per cent), wool (18 per cent), sheep and goats (by 11 per cent), potatoes (by 38 per cent), and vegetables (by 9 per cent). The increases, which were implemented on 1 January 1979, were also accompanied by rises in the price of Persian lamb and raw Astrakhan hides. No increases in retail prices were announced, however, and there will hence be some rise in the budgetary cost of subsidies to consumers on these items. They will go some way to reduce the impact of rising costs on farm finances, virtually all items of which have increased in recent years.[67]

The system of wholesale prices in Bulgaria has also received attention and an attempt been made to realign them with recent changes in factor input and world market prices. The practice of large-scale budget subsidization of agriculture enterprises was criticized in the March 1979 Party Plenary Session. New purchase prices were announced to take effect from 1 January 1980, as a result of which the subsidization of enterprise budgets will be reduced and will disappear in the near future. New retail prices for foodstuffs were implemented on 12 November 1979 in accordance with the adjustment in wholesale prices.

The Czechoslovak price system was adjusted in 1979, when State purchase prices of various categories of livestock and of milk were raised with the object of raising farm revenues on these items by about 16 per cent (equal to 5.1 billion crowns). The price changes will improve the financial position of farms in hill and mountain zones, increase profitability in pig and sheep farming, and stimulate the use of domestic resources of roughage. The price of fodder mixes is also to rise (by an average of 13 per cent), which should encourage use of domestically produced protein and roughage feed. Mineral fertilizer prices were also raised by 15 per cent.[68]

Wholesale prices for agricultural produce are being increased in Hungary in two stages, to be implemented on 1 January and 1 July 1980. Prices for crop production (wheat and vegetables) were increased by 6-9 per cent and for livestock production by about 14 per cent. The prices paid for cattle will rise by 8.2 per cent, pigs—by 9.2 per cent, sheep—by 13.2 per cent, poultry—by 15.9 per cent, milk—by 7.0 per cent and fish—by 27.7 per cent. These two series of increases will together raise the overall procurement price index by 11 per cent.

The gain to farmers will be partially offset by rises in the prices of certain inputs: mineral fertilizers and plant protection chemicals—by 25 per cent; protein fodder—by 25-30 per cent; machinery and equipment—by 25 per cent; and spare parts—by 23-28 per cent.[69]

Adjustments in the prices of agricultural products and some input factors were also made in Poland and Romania.

A *long-term special programme of co-operation* in agriculture and the food industry,[70] was adopted at the thirty-second CMEA Session, with the objectives of ensuring self-sufficiency in the main food products of the region and the creation of buffer stocks. In crop production the objective is to attain average production levels equal to one ton of grain per capita. High priority is being accorded to plant breeding for all main crop varieties.

In livestock production, animal breeding and selection is also given high priority—including the creation of gene banks for cattle; and an international poultry centre is to be set up.

A long-term purpose-oriented co-operation programme was set up to improve equipment and materials used in agriculture and the food industry. A new 150 hp tractor, new types of self-propelled grain and silage harvesters and machinery and equipment for livestock raising will be developed jointly, and joint capacities for the production of a 300 thousand ton/year feed yeast are being set up. The production and export of sugar, vegetables, fruit (including citrus fruit) and cotton will also be promoted; in the case of citrus fruit, plantations and processing facilities in Cuba will be expanded and virgin lands in Mongolia will be developed.

(v) Trends in crop production

Total grain output in east European countries in 1979 fell by 7.2 million tons from the previous year's level. In the Soviet Union it declined 58.2 million tons below the record 1978 harvest. For the whole region, grain output in 1979 totalled 254.5 million tons, and although this figure was over 20 per cent below the harvest gathered in 1978, it was about equal to the annual average of grain output in 1971-1975 (table 2.8).

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[65] *On the further development of Socialist Poland, on the well-being of the Polish people.* Warsaw 1979.

[66] "Implementing the Unitary Planning and Management of Agriculture", *Agerpress*, 3 February 1979.

[67] See R. Gumnerov "Procurement Prices and Stimulation of Agricultural Production", *Planovoe Khozyaistvo*, 1979, No. 3.

[68] *Zemedelske Noviny*, 27 October 1979, *Rudé Právo*, 31 October 1979.

[69] *Népszabadság*, 10 October, 1979, p. 10.

[70] *Ekonomicheskoye sotrudnichestvo stran-chlenov SEV*, 1978, No. 4, p. 53; B. Frumkin, "Specialization of the CMEA countries in the sphere of food production", *Voprosy Ekonomiki*, 1979, No. 10.

The total sown area under grain in 1979 in eastern Europe and the Soviet Union increased by about 0.9 per cent in comparison with the previous year, though it decreased slightly in Czechoslovakia and Hungary. Considerable changes were made in the distribution of the total sown area between different types of grain. This reflected both attempts to increase the production of feed grain and also the resowing of areas which were affected by the hard winter and spring floods. The area under wheat was reduced by 8.3 per cent, but in Bulgaria and the German Democratic Republic it increased by 2.3 and 10 per cent respectively. The area under coarse grains increased in aggregate by 9.3 per cent, within which the share of barley rose by 15.9 per cent, and maize by 22.5 per cent. In the Soviet Union the grain maize area rose by 55.1 per cent, in Bulgaria by 16.5 per cent, in Romania by 6.7 per cent and in Hungary by 5 per cent.

Gross output and sown area under grain and pulses in eastern Europe and the Soviet Union in 1976-1979

(*Indices, 1971-1975 = 100*)

	Total output	*Sown area*
Bulgaria	107.8	101.5
Czechoslovakia	106.1	101.2
German Democratic Republic	102.4	105.5
Hungary	107.3	94.4
Poland	93.3	95.3
Romania	128.4	103.3
Eastern Europe	107.1	99.3
Soviet Union	115.1	103.9
Total	112.8	103.1

Sources: CMEA *Statistical Yearbook* and 1979 plan-fulfilment reports.

Despite the bad harvest in 1979, the annual average total grain output for the 1976-1979 period surpassed the 1971-1975 annual average by over 5 million tons (7 per cent) in eastern Europe, by over 27 million tons (15.1 per cent) in the Soviet Union, and by 32 million tons (12.7 per cent) in the region as a whole. Around 76 per cent of the annual average increment of grain production was due to yield increases and the remainder to increases in the area sown to grain and pulses.

The partial data published for grain production allow only preliminary conclusions to be drawn about the situation by type of grain in 1979. Wheat production was 25 per cent below the previous year's level in the Soviet Union, by 33 per cent in Czechoslovakia, by 35 per cent in Hungary, by 30 per cent in Poland and by 25 per cent in Romania. The wheat harvest fell below the 1978 level in Bulgaria as well. The unfavourable weather conditions summarized in the first part of this section had no adverse effect on maize production, which increased sharply in the three biggest producers of the region: by 45 per cent in Bulgaria, by 21 per cent in Romania, and by 11 per cent in Hungary.

Vegetable and fruit production was better than in the previous year for some countries. Potato production increased by 12 per cent in the German Democratic Republic, by 6.3 per cent in Poland, and by 4.9 per cent in the Soviet Union, but it decreased in Czechoslovakia by 6.3 per cent (table 2.9). Vegetable production was 17 per cent up on the previous year's performance in the German Democratic Republic and rose by 9.4 per cent in Czechoslovakia and by 4 per cent in Poland; it declined by 5 per cent in Bulgaria, by 7.5 per cent in the Soviet Union and by 4.6 per cent in Romania. Fruit production more than doubled in the German Democratic Republic but remained 16 per cent below the 1978 level in Czechoslovakia and 32 per cent below in Romania.

Production of industrial crops varied widely by crop and by country. Sugar-beet production increased only in Bulgaria, Czechoslovakia and Romania—by 26.1, 5.0 and 2.8 per cent respectively. It decreased in the Soviet Union by 18.7 per cent and in the German Democratic Republic by 2.6 per cent. The production of oil seeds nearly doubled in Hungary—increasing by 85 per cent, but it fell nearly as abruptly in Poland—by 64 per cent—following bad weather.

A further rise in cotton production took place in the Soviet Union. The 1979 harvest was a record in all the main cotton-producing regions and output rose in total by nearly 6 per cent (see text table below).

Soviet cotton production

(*Thousand tons*)

	Annual average in 1971-1975	*1976*	*1977*	*1978*	*1979*	*Annual average in 1976-1979*	*Indices (1971-1975 = 100)*
Total	7 667	8 278	8 758	8 499	9 160	8 674	113.1
Of which:							
Uzbekistan	4 895	5 335	5 676	5 500	5 720	5 558	113.5

Sources: As for table 2.1.

Table 2.8

Production and yields of grain crops

(Output per year in million tons; yields in quintals per hectare)

Country and period	Grains: Total		Wheat		Rye		Barley		Oats		Maize	
	Output	Yield	Output	Yield	Output	Yield	Output	Yield	Output	Yield	Output	Yield
Bulgaria												
1976	8.56	33.6	3.51	38.2	0.02	12.0	1.78	34.0	0.06	14.6	3.03	41.3
1977	7.67	33.2	3.38	37.2	0.02	11.8	1.48	28.0	0.09	15.3	2.51	35.7
1978	7.58	34.3	3.47	37.1	0.02	14.5	1.49	31.4	0.08	14.9	2.24	37.1
1979	8.46	35.8	3.32	34.8	0.02*	15.0	1.51	32.3	0.07	12.3	3.21	47.6
Plan 1976-1980	9.30-9.60	..	..	..	..	..	..	..	..	..	..	..
Czechoslovakia												
1976	9.24	33.4	4.81	37.6	0.56	30.1	2.90	33.8	0.38	19.2	0.51	36.0
1977	10.46	37.4	5.21	40.5	0.64	30.3	3.21	37.5	0.45	26.1	0.79	47.0
1978	11.12	40.0	5.60	44.0	0.63	33.7	3.64	39.6	0.45	30.1	0.62	43.0
	11.20	..	..	..	..	..	..	..	..	..	..	..
1979	9.22	34.7	3.74	33.7	0.55*	..	3.60	34.6	0.41	27.4	0.99	51.0
Plan 1976-1980	10.6-11.0	41-42	..	..	..	..	..	..	..	..	..	..
German Democratic Republic												
1976	8.25	31.8	2.71	35.6	1.46	24.3	3.46	36.0	0.51	26.6	—	22.1
1977	8.77	34.1	2.91	39.8	1.64	26.6	3.68	36.9	0.41	26.9	—	47.5
1978	9.91	38.2	3.15	45.9	1.90	29.1	4.14	40.0	0.60	39.0	—	34.3
1979	8.93	35.5	3.11	43.7	1.83	27.0	3.32	35.1	0.50	38.4	—	30.0
Plan 1976-1980	9.70-10.75		..	..	..	..	..	..	..	..	—	..
Hungary												
1976	11.49	36.3	5.15	38.8	0.16	16.8	0.75	32.7	0.09	22.4	5.14	38.1
1977	12.44	40.4	5.32	40.5	0.14	15.6	0.71	31.5	0.07	20.2	6.01	46.4
1978	13.53	43.9	5.67	42.8	0.14	17.5	0.76	33.8	0.08	27.9	6.65	51.3
1979	12.31	40.6*	3.70	32.6	0.13*	..	0.50*	..	0.07*	..	7.40	54.2
Plan 1980	14.00	..	..	39-40	..	..	..	..	..	..	..	48-49
Poland												
1976	21.09	26.5	5.75	31.4	6.92	23.6	3.62	29.9	2.70	24.2	0.23	44.0
1977	19.60	24.0	5.31	28.9	6.25	20.1	3.40	27.5	2.55	23.3	0.23	40.5
1978	21.79	27.1	6.03	32.6	7.43	24.5	3.64	30.2	2.49	24.2	0.12	36.4
1979	17.34 [a]	22.0	4.20	27.0	5.20	18.1	3.73	25.4	2.19	20.0	0.18	39.0
Plan 1980	24.00	..	..	..	..	..	..	..	..	..	..	..
Plan 1976-1980	24.00	..	..	..	..	..	..	..	..	..	..	..
Romania												
1976	19.88	30.7	6.77 [b]	27.9 [b]	..	..	1.23	30.1	0.05	12.2	11.58	34.1
1977	18.71	29.1	6.51 [b]	28.2 [b]	..	..	1.86	31.2	0.06	11.3	10.11	30.4
1978	19.08	29.7	6.30 [b]	27.1 [b]	..	..	2.31	31.9	0.06	11.9	10.21	32.1
1979	19.28	30.1	4.72	22.0	..	..	2.04	26.4	0.06	10.2	12.40	37.2
Plan 1980	26.00	..	7.96 [b]	..	..	..	2.85	..	..	..	15.01	..
Plan 1976-1980	20.0-22.4	..	..	..	..	..	..	..	..	..	..	..
East European Countries												
1976	78.51	30.9	28.70	33.6	9.12	23.8	13.74	32.7	3.79	23.0	20.49	35.8
1977	77.65	30.6	28.64	34.2	8.69	21.5	14.34	32.3	3.63	23.2	19.65	35.2
1978	82.74	33.0	30.22	36.0	10.12	25.6	15.98	34.9	3.76	25.8	19.84	37.4
1979	75.54	30.1*	22.79	30.9*	7.73*	..	14.70	..	3.30*	..	24.18	..
Soviet Union												
1976	223.76	17.5	96.88	16.3	13.99	15.5	69.54	20.3	18.11	16.1	10.14	30.6
1977	195.73	15.0	92.16	14.8	8.48	12.7	52.69	15.3	18.41	14.1	10.98	32.5
1978	237.18	18.5	120.82	19.2	13.61	17.6	62.08	19.0	18.51	15.3	8.95	35.2
1979	179.00	13.8	90.10	15.6	8.10	12.5	50.00*	..	14.00*	..	8.40	21.4
Plan 1980	235.00	..	..	..	..	..	..	..	..	..	..	..
Plan 1976-1980	215-220	..	..	..	..	..	..	..	..	..	..	..
Byelorussian SSR												
1976	7.40	26.8	0.42	29.6	2.19	24.4	3.81	31.4	0.79	25.0	..	..
1977	6.62	23.2	0.38	27.6	2.06	23.2	3.15	25.1	0.78	22.5	..	..
1978	7.28	25.4	0.49	28.8	2.30	26.7	3.45	27.4	0.89	22.8	..	..
1979	4.58	15.0	0.31	18.6	1.58	16.6	2.03	15.6	0.56	14.3	..	..
Plan 1976-1980	9.0-10.0	32-34	..	..	..	..	..	..	..	..	..	..

TABLE 2.8 (*continued*)

Production and yields of grain crops

(*Output per year in million tons; yields in quintals per hectare*)

Country and period	*Grains: Total* Output	*Grains: Total* Yield	*Wheat* Output	*Wheat* Yield	*Rye* Output	*Rye* Yield	*Barley* Output	*Barley* Yield	*Oats* Output	*Oats* Yield	*Maize* Output	*Maize* Yield
Ukrainian SSR												
1976	44.57	27.9	14.44	31.1	1.35	19.4	17.31	29.0	2.05	22.7	4.89	28.6
1977	48.52	27.9	27.62	31.9	1.42	17.9	9.22	25.1	1.54	21.0	5.05	29.5
1978	50.61	30.3	29.19	35.2	1.39	20.6	10.88	27.9	1.66	23.0	3.80	32.0
1979	34.0	..	..	..	..	..	..	..	..	..	..	..
Plan 1980	50.0	..	..	..	..	..	..	..	..	..	..	..
Plan 1976-1980	46.0	..	..	..	..	..	..	..	..	..	..	..
East European Countries and the Soviet Union												
1976	302.27	19.7	125.58	18.5	23.11	18.0	83.28	21.7	21.90	17.0	30.63	34.0
1977	273.38	17.6	120.80	17.2	17.17	16.0	67.03	17.2	22.04	15.1	30.63	34.3
1978	319.92	20.8	151.04	21.2	23.73	20.3	78.06	20.9	22.27	16.4	28.79	36.7
1979	254.54	16.5*	112.89	17.4*	15.83*	..	64.70	..	17.30*	..	32.58	..

Sources: As for table 2.1.

[a] Excluding pulses.

[b] Including rye.

The production of hay and roughage in 1979 in most of the countries was better than in previous years. In the Soviet Union, total fodder production was considerably below the 1978 level. Fodder deficits were compensated partially by imports of coarse grain and other feed. During 1976-1978, the average annual net import of feed grain into Bulgaria, Czechoslovakia, the German Democratic Republic, Hungary and Poland amounted to 9.3 million tons. Romania was a net exporter of coarse grain (see text table below).

Annual average net imports of coarse grain in 1976-1978

	Total	of which: *Maize*
Bulgaria	412	207
Czechoslovakia	1 393	774
German Democratic Republic	3 170	1 505
Hungary	135	−272[a]
Poland	4 214	1 728
Eastern Europe	9 324	3 942
Soviet Union	12 959[b]	11 376[b]

Sources: CMEA Statistical Yearbook, Vneshnyaya Torgovlya SSSR v 1976 gody.

[a] Net export.

[b] 1976 only; the 1978 *Soviet Foreign Trade Yearbook* contained no reference to tonnages of grain imported in 1977 or 1978.

The tendency to expand further the area of agricultural land under fodder crops which occurred in the past cannot be continued indefinitely. It is unlikely that any substantial redistribution of agricultural land currently under non-grain fodder crops will take place. As shown in the text table below, the share of land producing fodder in total agricultural land in the region has remained stable over a number of years. Small fluctuations in the cropping structure in individual years resulted from changes in climatic conditions rather than from policy decisions.

Changes in the share of fodder crop land in total agricultural land

(*Total agricultural land = 100*)

A = East European countries
B = Soviet Union

	1975	*1976*	*1977*	*1978*
1. Area sown to barley, grain maize, oats and pulses				
A	21.1	20.2	20.1	19.7
B	10.5	10.7	10.0	10.4
2. Area sown to roots, silage, maize, green fodder, cultivated grassland, etc.				
A	13.5	13.3	13.4	13.6
B	12.0	12.0	11.5	11.9
3. Natural meadows and pastures				
A	23.9	24.2	24.2	24.0
B	57.9	57.9	58.0	58.2

Source: CMEA Statistical Yearbook.

The share of land directly supplying fodder in the Soviet Union differs sharply from the pattern in eastern Europe, due to differences in geographic and climatic conditions. Romania, Hungary and Bulgaria allocate a relatively big share of arable land to maize and barley. The Soviet Union and Czechoslovakia pay more attention to cultivated grassland, maize for silage and green fodder and roots, while Poland and the German Democratic Republic sow relatively more arable land to potatoes.

TABLE 2.9

Production and yields of non-grain crops

(Output in thousand tons ; yields in quintals per hectare)

Country and period	Potatoes		Vegetables output	Fruit output	Sugar-beet		Oilseeds		Raw cotton	
	Output	Yield			Output	Yield	Output	Yield	Output	Yield
Bulgaria										
1976	351	119	1 587	2 233	2 327	332	463	16.0	3.3	1.3
1977	383	112	1 617	1 775	1 751	249	516	16.6	13.1	7.0
1978	391	105	1 760	2 030	1 600	264	494	14.9	15.9	8.8
1979	444	113	1 673	1 834	2 017	332	415[a]	18.0[a]	19.0	11.7
Czechoslovakia										
1976	4 214	176	829	671	5 249	244	147	17.5	..	..
1977	3 760	159	1 133	574	8 202	380	186	18.7	..	..
1978	3 995	180	1 088	687	7 258	333	195	18.0	..	..
1979	3 743	173	1 190	577	7 617	348	130*	..	..	..
German Democratic Republic										
1976	6 816	114	934	615	5 001	191	327	24.2	..	..
1977	10 313	176	1 527	480	7 424	319	317	23.7	..	..
1978	10 777	186	1 279	483	6 769	290	330	24.5	..	..
1979	12 066	220	1 500	1 100	6 596	260	214	17.2	..	..
Hungary										
1976	1 396	121	1 613	2 224	3 943	305	324	12.2	..	..
1977	1 650	135	2 024	2 526	3 890	319	372	13.8	..	..
1978	1 829	162	1 786	2 179	4 192	342	400	14.1	..	..
1979	..	..	..	.	3 900	353	..	..	..	..
Poland										
1976	49 951	203	3 783	1 865	15 107	272	996	24.2	..	..
1977	41 148	169	3 836	1 637	15 640	294	721	17.5	..	..
1978	46 648	198	4 401	1 730	15 706	300	716	19.9	..	..
1979	49 600	203	4 575	1 791	14 200	311	256	12.5	..	..
Romania										
1976	4 788	159	3 593	2 886	6 911	294	1 084	13.7	0.1	0.2
1977	4 207	137	3 244	2 915	6 246	245	1 059	13.3	0.5	2.6
1978	4 465	148	3 662	2 636	5 845	235	1 132	13.8	1.0	5.4
1979	4 566	152	3 500	1 796	6 008	232	889[a]	17.1	..	..
Plan 1980	5 100	..	5 170	2 410	9 375	..	1 184[a]	..	..	..
Eastern Europe										
1976	67 516	180	12 339	10 494	38 508	263	3 341	16.9	3.4	1.1
1977	61 461	165	13 381	9 907	43 153	302	3 171	15.7	13.6	6.6
1978	68 105	190	13 976	9 745	41 370	294	3 267	16.0	16.9	8.4
Soviet Union										
1976	85 102	120	24 991	15 260	99 872	266	5 989	10.1	8 278	28.1
1977	83 652	118	24 149	15 275	93 099	248	6 619	11.0	8 758	29.3
1978	86 087	122	27 902	14 393	93 483	248	6 210	10.4	8 499	28.0
1979	90 300	..	25 800	..	76 000	..	..	..	9 160	..
Plan 1980	..	..	28 400	..	95 000-98 000	..	7 600	..	9 050	..
Byelorussian SSR										
1976	14 126	167	699	541	1 067	216	..	..	..	..
1977	11 314	138	637	429	1 351	261	..	..	..	..
1978	14 514	180	796	622	1 320	..	..	..	..	..
1979	15 230	191	778	412	1 387	267	..	..	..	..
Ukrainian SSR										
1976	23 724	138	8 213	3 927	61 840	345	2 111	12.3	..	..
1977	18 805	110	6 944	4 599	55 467	310	2 675	15.7	..	..
1978	23 917	140	8 337	2 883	56 221	310	2 430	14.3	..	..
1979	23 100	..	6 900	..	47 000	..	2 640	..	..	..
Soviet Union and Eastern Europe										
1976	152 618	141	37 330	25 754	138 380	265	9 330	11.8	8 281	27.8
1977	145 113	135	37 530	25 182	136 252	261	9 790	12.2	8 772	29.1
1978	154 192	145	41 878	24 138	134 853	261	9 477	11.8	8 516	27.8

Sources: As for table 2.1.

[a] Sunflower only.

Food-processing industry by-products (molasses, milling and brewery wastes, meal and bone meal, milk whey, and urban food wastes) are not yet fully utilized in animal feeding. The ECE secretariat estimates that these industrial by-products accounted for only 2.6 per cent of total fodder consumption (in feed units) in the European CMEA countries. In the Soviet Union, the share of fish, bone and meat meal and fodder yeasts in mixed feed production increased from 28.4 per cent in 1970, to 35.5 per cent in 1975 and 53.6 per cent in 1978.[71]

Meadows and pasture land have important potential for green fodder and hay production. The Soviet Union has particularly large resources in this category which are, however, markedly under-utilized. Meadows and pastures account for 58 per cent of total agricultural land in the Soviet Union, but their contribution to total fodder supplies is only 30 per cent—reflecting the very low yield per hectare. Work is being carried out to improve some 17 million hectares of meadow and pasture land (5.3 per cent of the total). The current five-year plan specified the drainage of 4.7 million hectares and the installation of livestock watering facilities on 37.6 million hectares. Over the next five-year period, the Soviet Union envisages basic land improvement work (irrigation or drainage) on 12.4 million hectares and the provision of water supplies to 27.3 million hectares of desert, semi-desert and mountain terrains.

Share of grain, roots and roughage in basic domestic fodder production in 1978

	Grains and pulses	*Root fodder crops*	*Roughage*
Bulgaria	55.4	2.5	42.1
Czechoslovakia	35.7	4.4	59.9
German Democratic Republic	42.6	14.1	43.3
Hungary	61.2	2.9	35.9
Poland	36.1	23.1	40.8
Romania	65.5	7.6	26.9
Eastern Europe	46.0	13.1	40.9
Soviet Union	38.7	6.8	54.5
Total	40.7	8.6	50.7

Source: CMEA *Statistical Yearbook*.

Note: Basic domestic fodder production includes: feed grains and pulses (nutrient coefficient weighting = 1.0); potatoes and feed roots (nutrient coefficient weighting = 0.2) and roughage (nutrient coefficient weighting = 0.4). Roughage includes only hay from cultivated grassland (annual and perennial), together with silage maize and green fodder. Estimates by the ECE secretariat indicate that these items account for 68-72 per cent of total domestic fodder consumption (in standard oat-based feed units) in eastern Europe and the Soviet Union together—the rest (28-32 per cent) being accounted for by grazing, domestic waste, micro-biological industry feed additives, and of course imported grains, oilseeds and other feed items.

All countries have made structural adjustments in their fodder balances in recent years (see text table above). The share of grain and pulses remains over-large while coarse fodder reserves are under-utilized. Grain and pulses are the basic fodder in Romania, Hungary and Bulgaria. In Czechoslovakia, the German Democratic Republic and the Soviet Union roughages account for more than 50 per cent of domestic fodder production. Poland uses a lot of potatoes. A shift from grain and pulses to coarse fodder is noticeable in east European countries, but further changes in structure will be limited by climatic conditions, herd structures and local traditions.

Another type of structural problem concerns the availability of *protein* in current feed output. Some countries of the region are attempting to make good the shortfall by increasing green fodder and summer grazing, and by paying more attention to the cultivation of grain, pulses and perennial grasses such as clover, lucerne and lucerne-grass mixtures which are rich in cheap digestible proteins —so far with only limited success.

Mixed feed production is organized in specialized State enterprises, in inter-farm enterprises and in specialized sections of big livestock farms. The number of fodder-processing enterprises, and their production capacity has increased considerably in the Soviet Union. At the beginning of 1977 there were more than 2,000 such production units in the RSFSR alone. Their total production of mixed feed was 24.6 million tons in 1970, 46.2 million tons in 1975 and is planned at 77.5 million tons in 1980. This would account for 15.2 per cent of total fodder consumption (in feed units). State feed-processing enterprises in Bulgaria increased feed deliveries to livestock farms from 1.55 million tons in 1970, to 2.47 million tons in 1975 and 2.93 million tons in 1977. The mixed-feed industry in Czechoslovakia now has a capacity of 7.5 million tons.

(vi) Livestock and livestock output

Livestock numbers in 1979 continued to increase. Available data show a slight increase in the number of cattle in Bulgaria, Czechoslovakia, the German Democratic Republic and Romania. The cattle herds in Poland and the Soviet Union increased by 600 thousand and 1 million respectively. Romania has plans for a remarkable rise—about 17 per cent—in cattle numbers between 1979 and 1980 (see table 2.10). During the last two years most countries have announced measures aiming at increasing cattle herds.

The number of pigs increased in 1979 in all countries except Czechoslovakia and Poland. Sheep and goats increased in Bulgaria, Romania and the Soviet Union: these three countries account for about 95 per cent of the total sheep herds in the region. Romania has plans to increase the number of sheep in 1980 alone by 20.7 per cent. Despite feed shortages, the maintenance of the size of herds is a priority in all countries of the region.

The structure of herds varied by country, and was determined partly by planned development strategies, partly by feed availability (see text table above). The structure of herds in Bulgaria and Hungary was rather similar—and in both cases differed markedly from the structure in the region as a whole. Their share of cattle is relatively modest while that of poultry is the biggest in the region. Czechoslovakia, the German Democratic Republic and Poland concentrate primarily on cattle and pig farming, while in the Soviet Union the share of cattle is by far the biggest in the seven countries.

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[71]

Growth of micro-biological production for agriculture in the Soviet Union

	1970	*1975*	*1978*
1. Fodder micro-biological protein production available for feed use, thou. tons	261	674	918
2. Fodder antibiotics in batsitratsine units, tons	454	1 288	1 536
3. Feed yeast, standard units, tons	235	1 672	2 514
4. Micro-biological plant protection products, tons	510	4 900	5 000
5. Lysine, tons	60	1 760	4 790

Source: N. Shcheblykin, "Development of the combined fodder and micro-biological industry for agricultural industrialization", *Planovoe Khozyaistvo* No. 6, 1979.

TABLE 2.10

Livestock and livestock output

Country and period	Livestock (thousand head)					Livestock output (thousand tons)				
	Cattle		Pigs	Sheep and goats	Total conventional units [a]	Meat		Milk total	Eggs (million)	Woo
	Total	of which: cows				Total	of which: poultry			
Bulgaria										
1976	1 787	721	3 456	10 031	4 319	732	130	1 816	1 816	33.8
1977	1 797	724	3 399	10 470	4 383	704	149	1 929	1 993	34.0
1978	1 818	743	3 772	10 479	4 498	726	158	2 003	2 174	34.3
1979	1 839	733	3 830	10 913	..	767	..	2 202	2 302	35.0
Czechoslovakia										
1976	4 654	1 898	6 820	895	6 627	1 322	141	5 485	4 492	3.6
1977	4 758	1 898	7 510	924	6 908	1 383	152	5 601	4 639	3.8
1978	4 887	1 909	7 601	937	7 059	1 520	161	5 707	4 690	4.0
1979	4 914	..	7 588	942	..	1 559	..	5 730	4 732	3.9
German Democratic Republic										
1976	5 471	2 146	11 291	1 912	8 755	1 808	131	7 393	5 217	10.6
1977	5 549	2 158	11 757	1 961	8 948	1 767	134	7 209	5 266	10.4
1978	5 572	2 141	11 734	1 994	8 989	1 809	135	7 405	5 219	11.0
1979	5 596	2 124	12 132	2 004	..	1 821	140	7 172	5 206	11.3
Hungary										
1976	1 888	766	7 854	2 364	5 448	1 324	308	1 941	3 995	8.6
1977	1 949	781	7 850	2 630	5 536	1 467	320	2 151	4 528	9.9
1978	1 966	790	8 011	2 876	5 647	1 525	342	2 348	4 748	10.8
1979	..	..	8 331	3 000*	..	1 556	..	2 465	..	..
Poland										
1976	12 002	5 786	16 766	3 151 [b]	18 455	2 896	294	16 534	8 020	10.6
1977	12 359	5 879	20 591	3 593 [b]	19 895	2 891	320	16 941	8 494	12.3
1978	12 409	5 929	21 108	3 704 [b]	20 021	3 149	358	17 066	8 531	12.8
1979	13 036 [c]	6 049	20 614 [c]	4 221	..	3 275	..	16 964*	8 700	13.6
Romania										
1976	6 351	2 569	10 193	14 775	11 780	1 426	303	4 981	5 670	32.0
1977	6 306	2 580	9 744	14 867	11 556	1 503	338	5 392	5 794	34.7
1978	6 511	2 670	10 337	16 024	12 243	1 533	356	5 597	6 292	37.5
1979	6 513	2 682	10 899	16 195	..	1 674*	..	5 608*	7 110	38.6
Plan 1980	7 650	4 000 [d]	13 000	19 550	..	..	..	..	7 220	54.0
Eastern Europe										
1976	32 153	13 886	56 380	33 128	55 384	9 508	1 307	38 150	29 210	99.2
1977	32 718	14 020	60 851	34 445	57 226	9 715	1 413	39 223	30 714	105.1
1978	33 163	14 182	62 563	36 014	58 457	10 262	1 510	40 126	31 612	109.3
1979	33 864	..	63 394	32 275	..	10 652	..	40 141	..	..
Soviet Union										
1976	110 346	41 987	63 055	145 373	138 372	13 583	1 411	89 675	56 187	435.5
1977	112 690	42 592	70 511	146 611	143 927	14 722	1 691	94 229	61 194	459.0
1978	114 086	43 016	73 484	148 104	147 281	15 353	1 885	94 498	64 470	463.2
1979	115 000	43 300	73 700	149 200	..	15 500	..	93 300	65 600	472.3
Byelorussian SSR										
1976	6 494	2 688	4 158	554	..	825	57	6 087	2 544	1.0
1977	6 705	2 742	4 567	585	..	885	59	6 435	2 742	1.1
1978	6 776	2 751	4 557	557	..	912	61	6 419	2 842	1.1
1979	6 728	2 747	4 430	562	..	915	..	6 319	2 894	1.1
Ukrainian SSR										
1976	24 196	9 002	18 195	8 911	..	3 137	392	21 157	12 018	24.9
1977	24 924	9 143	19 831	9 173	..	3 465	449	22 467	13 154	29.6
1978	25 379	9 229	20 659	9 201	..	3 617	475	22 480	13 796	27.7
1979	25 500	9 300	20 100	9 200	..	3 635	..	21 600	13 900	28.3
Soviet Union and Eastern Europe										
1976	142 499	55 873	119 435	178 501	193 286	23 091	2 718	127 825	85 397	534.7
1977	145 408	56 612	131 362	181 056	201 153	24 437	3 104	134 152	91 908	564.1
1978	147 249	57 198	136 047	184 118	205 738	25 615	3 395	134 624	96 087	572.5
1979	148 864*	..	137 094	186 475	..	26 152*	..	133 441	..	..

Sources: As for table 2.1.

Note: Livestock numbers are on the basis of end-year censuses. Meat is in carcass weight. Eggs include only hens' eggs. Wool is raw wool on a greasy basis.

[a] In terms of cows. Conversion ratios as follows: Cattle (other than cows) 0.6; pigs 0.3; total sheep and goats 0.1; horses 1.0; and poultry 0.02. Source: *Spravochnik po planirovaniju sel'skogo choziystva* (Moscow, "Kolos", 1974) p. 151.

[b] Goats excluded.

[c] Mid-year data.

[d] Heifers excluded.

TABLE 2.11

State procurement of major crops and animal products

(Thousand tons; eggs in millions)

Country and period	Grains				Potatoes		Sugar-beet		Oil seeds		Meat		Milk		Eggs	
	Total		Bread grains													
	Volume	Percentage of total output	Volume	Percentage of total output	Volume	Percentage of total output	Volume	Percentage of total output	Volume	Percentage of total output	Volume	Percentage of total output	Volume	Percentage of total output	Volume	Percentage of total output
Bulgaria																
1976	5 398	63.9	2 400	68.1	..	..	2 271	99.4	336	92.8	774	74.6	1 383	78.4	1 308	72.0
1977	4 909	65.7	2 330	63.6	..	..	1 738	99.3	398	94.1	760	75.8	1 501	80.2	1 303	65.1
1978	3 776	51.5	2 267	65.1	..	..	1 596	99.8	345	93.5	799	76.7	1 569	80.8	1 283	54.0
1979	4 493	54.9	2 208	66.4	..	..	2 035	100.0	406	97.8	830	..	1 698	80.3	1 411	61.3
Czechoslovakia																
1976	3 676	39.8	2 480	46.2	2 269	53.8	5 219	99.4	..	..	1 592	..	4 600	83.9	2 310	51.4
1977	3 742	35.8	2 618	44.5	1 957	51.8	8 191	99.9	..	..	1 670	..	4 753	84.9	2 386	51.4
1978	3 758	31.1	2 498	40.1	2 063	51.6	7 248	99.9	..	..	1 768	..	4 873	85.4	2 461	52.5
German Democratic Republic																
1976	3 160	38.3	1 895	45.4	5 545	81.4	5 001	98.0	324	99.0	2 254	94.6	7 658	94.6	4 361	83.6
1977	3 355	38.5	2 036	44.7	5 829	56.5	7 384	86.1	318	100	2 207	95.2	7 535	94.9	4 509	85.6
1978	3 255	32.9	1 881	37.3	5 781	53.6	6 769	89.4	332	100	2 264	96.6	7 824	95.1	4 467	85.6
1979	3 300	36.7	2 004	..	5 745	47.6	6 436	97.6	216	98.9	2 274	96.4	7 789	95.0	4 456	85.6
Hungary																
1976	5 677	49.6	3 725	70.2	314	22.5	3 888	98.6	143	76.1	1 230	71.2	1 474	72.9	1 014	25.4
1977	5 904	47.7	3 828	70.1	412	25.0	3 890	100	186	86.5	1 393	73.3	1 682	75.0	1 227	27.1
1978	6 339	47.5	4 088	70.4	493	26.2	4 165	99.4	214	95.1	1 442	73.9	1 799	75.7	1 379	29.0
Poland																
1976	5 345	25.3	3 623	28.6	5 741	11.5	15 107	100	951	95.5	2 285	78.9	9 099	55.0	2 852	35.6
1977	5 961	30.4	3 861	33.4	5 474	13.3	15 640	100	672	93.2	2 278	79.6	9 965	59.3	3 374	39.7
1978	6 752	31.0	4 607	34.2	6 085	13.1	15 707	100	676	94.7	2 527	85.2	10 278	60.3	3 295	38.6
1979	5 065	29.2	2 760	29.4	7 145	14.4	14 200	100	230	98.6	2 670	86.6	10 277	60.5	3 456	39.7
Soviet Union																
1976	92 127	41.2	54 387	24.3	13 436	15.8	85 142	85.3	3 770	71.4	15 108	68.5	56 220	62.7	32 897	58.5
1977	68 027	34.8	44 367	22.7	17 122	20.5	84 869	91.2	4 447	75.3	16 286	69.2	60 762	64.0	36 831	60.2
1978	95 901	40.4	66 282	27.9	15 069	17.5	80 087	85.7	4 022	75.4	17 034	69.8	60 368	63.9	39 288	60.9
1979	..	..	..	..	..	..	..	..	..	..	16 700	67.1	59 000	63.2	41 000	62.5
Byelorussian SSR																
1976	1 301	17.6	675	9.1	1 944	13.8	959	89.9	..	..	964	72.4	3 592	59.0	1 167	45.9
1977	1 403	21.2	702	10.6	1 792	15.8	1 227	90.5	..	..	1 069	75.1	4 066	63.2	1 284	46.8
1978	1 616	22.2	..	..	2 351	16.1	1 167	88.1	..	..	1 122	78.6	4 044	63.0	1 349	47.5
1979	1 138	24.9	..	..	2 010	13.2	1 245	89.8	..	..	1 143	78.6	3 988	63.1	1 437	49.7
Ukrainian SSR																
1976	14 924	33.5	5 439	12.2	3 044	12.8	51 211	82.8	1 436	68.0	3 196	64.9	13 184	62.3	6 554	54.5
1977	18 475	38.1	14 442	29.8	2 883	15.3	50 555	91.1	1 984	74.2	3 493	65.9	14 235	63.4	7 479	56.9
1978	17 757	35.1	13 020	25.7	3 241	13.6	47 575	84.6	1 845	75.9	3 727	66.4	14 092	62.7	7 872	57.1
1979	..	..	..	..	..	..	..	..	..	..	3 700	69.4	13 500	62.5	8 200	59.0

Sources: As for table 2.1.
Note: For Bulgaria, Hungary, the Soviet Union and the Ukrainian SSR oil seeds include sunflower seeds only, and for Poland rape seeds and agrimony only. For Poland meat is in carcass weight, for all other countries it is in live weight.

Structure of herds in 1978 (expressed in livestock units)

(Total livestock = 100)

	Cattle	*Pigs*	*Sheep and goats*	*Poultry*
Bulgaria	30.9	25.2	23.3	17.9
Czechoslovakia	52.4	32.3	1.3	13.3
German Democratic Republic	46.7	39.2	2.2	11.2
Hungary	26.5	42.5	5.1	23.5
Poland	49.0	31.6	1.9	8.4
Romania	40.6	25.3	13.1	16.3
Total	43.7	32.1	6.2	13.2
Soviet Union	58.2	15.0	10.0	12.9
Total	54.1	19.8	9.0	13.0

Source: CMEA Statistical Yearbook.

Note: Herd sizes in livestock units are calculated on the basis of the following coefficients: cows 1.0; other cattle 0.6; pigs 0.3; sheep and goats 0.2; horses 1.0 and poultry 0.02 (see *Spravochnik Ekonomista Kholkhoza i sovkhoza*, Moscow, 1974).

Since 1975, the share of cattle increased only in Bulgaria and Poland, whereas for the region as a whole their share fell from 56.2 per cent in 1975 to 54.1 per cent in 1978. The share of pigs increased considerably only in the Soviet Union. The share of sheep and goats remained constant and horses declined in all countries. The share of poultry increased in Hungary, Romania, the Soviet Union and in the region as a whole.

Domestic production of grain and pulses, root crops and roughage (silage, green mass and hay from natural meadows and sown crops) expressed in feed units per livestock unit increased up to 1978 by 3 per cent over the 1975 level in eastern Europe, and by 19.6 per cent in the whole region. The latter figure is, however, mainly as a result of the recovery in Soviet feed output from the poor harvest in 1975.

Livestock production in 1979 stagnated following the bad harvest of feed crops, the consequences of which will carry forward into 1980. Meat output increased by 5.6 per cent in Bulgaria, 2.6 per cent in Czechoslovakia, by a modest 0.7 per cent in the German Democratic Republic, 2 per cent in Hungary, 4 per cent in Poland, 9.2 per cent in Romania and by 1.3 per cent in the Soviet Union. Milk output increased in Bulgaria and Hungary and decreased in the German Democratic Republic, Poland and the Soviet Union. Output of eggs increased in Bulgaria, Czechoslovakia, Poland, Romania and in the Soviet Union, but stagnated in the German Democratic Republic. Output of wool rose in Bulgaria, the German Democratic Republic, Poland, Romania and the Soviet Union. State procurements closely followed production trends in all countries (table 2.11), and plans for State procurements were under-fulfilled in most countries.

Gross agricultural output in the *Ukrainian SSR* in 1979 was 6.8 per cent below that in the previous year, but remained above the annual average for 1971-1975. The decrease in output was due to drought. Grain production in 1979 was 34.0 million tons; although less than in 1978, the average for 1976-1979 was 11 per cent higher than in the previous plan period. Output of potatoes fell by 3.4 per cent, vegetables by 17.2 and sugar-beet by 16.4 per cent, the 1978 level, but sunflower production increased by 8.6 per cent. No big changes were recorded in the size of herds: the number of cattle increased by 0.4 per cent while pigs decreased by 2.9 per cent. Production of meat, eggs and wool increased but output of milk fell slightly in comparison with the previous year. The plans for State procurements were not fulfilled. Gross capital formation in agriculture totalled 5.3 billion roubles—1.3 per cent more than the year before. Some 13.2 per cent of total investments was expended on land improvement.

Farmers in the *Byelorussian SSR* also worked under adverse climatic conditions. Gross agricultural output in 1979 was 550 million roubles higher than the annual average in the 1971-1975 period but fell about 4.8 per cent below the 1978 level. Grain output fell by 37 per cent and vegetables by 2.3 per cent, but production of potatoes and sugar-beet increased by 4.9 and 5.1 per cent respectively. Herd numbers decreased slightly.

3. INDUSTRY AND ENERGY

A. INDUSTRY

Gross industrial production in the region rose by an estimated 3.7 per cent in 1979. This compares with a figure of 5.1 per cent in 1978 and 6.0 per cent in 1977. Growth fell off in every country—particularly sharply in the Soviet Union, Czechoslovakia, Hungary and Poland (table 3.1). In a number of countries the rate of expansion in 1979 was among the lowest registered in the post-war period.

Most countries envisage some acceleration in the industrial growth rate in 1980. However, the planned improvement is mostly marginal, and the target figures were once again set below those implied in the five-year plans. In effect, no closing of the gap can be expected on this basis in the current year except in Romania, where the annual plan target is well in line with the medium-term plan.

In the Soviet Union and in several east European countries, difficult weather conditions in the first quarter of 1979 gave rise to serious bottlenecks in transportation. The low level of stocks resulted in supply breakdowns, the effects of which continued to be felt throughout the year. In the Soviet Union, Czechoslovakia and Poland, a fall off in agricultural supplies after the 1979 harvest also adversely affected industrial growth.

These difficulties compounded other deeply rooted external and internal problems that have impeded growth in recent years. In a number of east European countries, strains in the foreign trade balances restricted possibilities for improving the supply of imported raw materials and other essential products. On the other hand, the continued rise in the cost of obtaining raw materials, whether from domestic producers or from imports, aggravated the situation to the point of introducing what might be termed a "new dimension" in the conditions of development. The constraints on labour supply and basic material availabilities affected a growing share of economic activity, and the basis on which much of the dynamic growth in the past had rested was narrowed down considerably.

The phase of industrial development characterized by abundance of labour and cheap material resources has often been referred to as the period of "extensive growth". It is commonly assumed that such growth is associated with relatively slow increases in factor productivity. Abundant labour supplies were thought to affect adversely the growth of labour productivity, while steep investment growth (facilitated by the fast growth of output) was often considered to lead to a growth of fixed assets per worker in excess of the growth of labour productivity—and hence to falling capital productivity. Such "extensive" growth was also thought to be conditioned by the availability of easily tapped natural resources, growth in the use of which could well exceed increases in final output.

Past experience indicates that, in reality, growth processes have been more complex. Fast industrial growth has often been associated with high growth of both employment and labour productivity. It has also frequently been characterized by a faster growth of output than of capital. Higher degrees of processing, technological advance and the substitution of natural raw materials by man-made products has sometimes counterbalanced the factors working for a greater material intensity of production.

On the other hand, a slackening in the growth of the labour supply, even if accompanied by an accelerated growth of capital per worker, has not automatically been translated into faster growth of labour productivity. Even rarer were the cases where the acceleration in the growth of labour productivity exceeded the acceleration in the growth of capital intensity (fixed assets per worker); i.e. cases where trends in capital productivity have improved. While information on the use of material inputs is admittedly more scarce, it would appear that, at least on a global scale, the slower growth of output has in most cases not been associated with a relative deceleration in the use of material resources.

In fact, as can be seen from table 3.2, practically all countries of the region have experienced adverse trends in productivity in recent years—whether measured in terms of labour productivity, capital productivity or total productivity (see also chart 3.1). This is notwithstanding the fact that the stage of industrial development in individual countries is not uniform. In Czechoslovakia, the German Democratic Republic, Hungary and the Soviet Union, the supply of labour has already been limited for a number of years, and in these countries changes in the growth rate of employment have not been a significant factor in determining recent trends in industrial output and productivity. In Bulgaria, Poland and Romania, where labour reserves have not yet been fully utilized, declines in the growth of employment were pronounced and accompanied by steep increases in the growth of capital intensity. However, in the period 1976-1978, only Romania was able to compensate for the slower growth of employment by a faster growth of labour productivity, and then only partially.

The strategy of raising capital intensity as a means of counteracting the declining trend in the growth of labour productivity is of course limited by the very appearance of such a trend. A declining growth of industrial labour productivity, and also, under prevailing conditions of labour supply, of industrial production, is evidently interlinked with the global availability of investment resources. As pointed out elsewhere in this *Survey* moreover, the problem has been aggravated in recent years by the need to redress foreign trading balances, as well as by the competing requirements of other sectors. More strictly on the industrial level, the solution of energy and raw material problems has made it imperative to shift an increasing share of investment towards the primary branches. This has not only diverted resources from the modernization of production processes in the manufacturing branches, but has directly contributed to the changes in capital productivity described above.

Table 3.1

Gross output, employment and labour productivity in industry

(Annual percentage change)

Period	*Gross output*	*Employment*	*Labour productivity*	*Gross output*	*Employment*	*Labour productivity*
		Bulgaria			*Romania*	
1976	6.8	1.3	5.3	11.4	5.1	6.0
1977	6.8	0.3	6.6	12.5	2.9	9.3
1978	6.9	1.7	5.0	9.6	2.5	6.9
Plan 1979	7.8	1.0[a]	6.7[b]	11.3	1.0[a]	10.2[b]
1979	6.0	−0.2	6.2	8.0	1.3[a]	6.4[b]
Plan 1980	6.3	1.0[a]	5.3[b]	11.4	2.5[a]	8.7
Plan 1976-1980	9.2	0.7[a]	8.5[b]	10.2-11.2[e]	1.6-2.1[a]	8.5-9.0[b]
		Czechoslovakia			*Soviet Union*	
1976	5.5	0.6	4.9	4.8	2.2	2.6
1977	5.7	0.7	5.0	5.7	1.7	3.9
1978	4.8	0.7	4.1	4.8	1.7	3.0
Plan 1979	4.5	0.7[a]	3.8[b]	5.7	1.0[a]	4.7[a]
1979	3.7	0.8	2.9	3.4	1.0[a]	2.4[b]
Plan 1980	4.0	0.8	3.2	4.5	0.7[a]	3.8[b]
Plan 1976-1980	5.7-6.0	0.6[a]	5.3[b]	6.3	0.8[a]	5.5[b]
		German Democratic Republic[c]			*Byelorussian SSR*	
					[a]	[b]
1976	5.9	0.9	4.9	7.0	2.3	4.6
1977	5.4	0.3	5.1	8.3	2.6	5.6
1978	5.4	0.5	4.9	7.8	2.7	5.0
Plan 1979	5.5	0.8[a]	4.6[b]	6.2	1.1	5.0
1979	4.8	0.7	4.1	6.9	2.6	4.2
Plan 1980	4.7	0.2[a]	4.5[b]	5.9	1.6	4.2
Plan 1976-1980	6.0	0.5[a]	5.4[b]	7.4	1.9	5.4
		Hungary			*Ukrainian SSR*	
					[a]	[b]
1976	4.6	(−0.8)	5.4	4.1	1.8	2.3
1977	6.6	(−0.2)	6.8	5.7	1.9	3.7
1978	4.9	—	4.9	4.5	1.9	2.6
Plan 1979	4.0	—	4.0	5.2	1.5	3.6
1979	2.8	(−1.6)	4.5	3.0	1.4	1.6
Plan 1980	3.5-4.0	(−0.5)	3.0-4.0	4.0	1.3	2.7
Plan 1976-1980	6.0	—	6.0	5.9	0.7	5.2
		Poland			*Eastern Europe*	
1976	9.3	0.6	8.6	7.4	1.1	6.2
1977	6.9	1.5	5.3	7.0	1.3	5.6
1978	4.9	0.2	4.7	5.7	0.9	4.8
Plan 1979[d]	4.9	(−0.4)[a]	5.3[b]	6.0	..	..
1979[d]	2.8	(−0.5)	3.3	4.4	..	..
Plan 1980[d]	3.0-4.2	(0.2-1.3)[a]	4.4[b]	5.2	..	..
Plan 1976-1980[d]	8.2-8.5	0.7[a]	7.4-7.8[b]	7.5	0.8	6.6
		Eastern Europe and Soviet Union				
1976	5.5	1.9	3.5			
1977	6.0	1.6	4.3			
1978	5.1	1.4	3.6			
Plan 1979	5.7	..	..			
1979	3.7	..	..			
Plan 1980	4.7	0.7	5.9			
Plan 1976-1980	6.6	..	..			

Sources: National statistics, *CMEA Yearbooks*, plans and plan-fulfilment reports.

Note: Unless otherwise indicated, productivity figures are derived from output and employment data. These may differ from officially reported productivity changes because of differences in coverage and definitions.

[a] Derived from output and productivity data.

[b] Reported.

[c] Commodity production.

[d] Sales.

[e] Original figure, this was later raised to 11.5.

TABLE 3.2

Output and productivity indicators
(*Average annual percentage change*)

	Bulgaria	*Czecho-slovakia*	*German Dem. Rep.*	*Hungary*	*Poland*	*Romania*	*Soviet Union*
Gross output							
1971-1975	9.2	6.7	6.3	6.4	10.4	13.0	7.4
1976-1978	6.8	5.3	5.1	5.4	7.0	11.0	5.1
Employment							
1971-1975	2.3	0.7	0.3	0.2	2.8	6.4	1.5
1976-1978	0.9	0.7	0.6	−0.3	0.4	3.5	1.9
Fixed assets							
1971-1975	9.4	5.5	6.5	8.1	9.7	12.3	8.6
1976-1978	10.0	6.4	6.1	7.9	11.1	12.7	7.5
Labour productivity							
1971-1975	6.6	6.0	6.0	6.2	7.4	6.3	5.8
1976-1978	5.8	4.6	4.5	5.7	6.6	7.2	3.2
Capital intensity							
1971-1975	7.3	4.8	6.2	7.9	6.7	5.5	7.0
1976-1978	9.0	5.6	5.4	8.2	10.7	8.9	5.5
Capital productivity							
1971-1975	−0.6	1.1	−0.2	−1.6	0.6	0.7	−1.1
1976-1978	−3.3	−0.9	−0.9	−2.4	−3.7	−1.5	−2.2
Total productivity							
1971-1975	3.7	4.0	3.5	3.1	4.7	4.1	3.0
1976-1978	2.2	2.4	2.3	2.5	2.5	3.7	1.0
Fixed investment							
1971-1975	5.9	7.1	4.0	6.2	21.9	12.3	6.8
1976-1978	6.4	6.3	7.0	11.1	—	13.7	5.1

Source: National statistics.

Note: The figures in output and labour productivities may differ slightly from those shown in table 3.1 because of different coverage. The figures for total productivity were obtained by combining the growth rates of labour productivity and of capital productivity with weights of 0.6 in the case of the former and of 0.4 for the latter. The relationship approximates that between the wage fund, and the sum of an imputed capital charge and of an allowance for depreciation of fixed assets.

The slower growth of labour productivity has also left less room for innovations in the systems of labour remuneration, particularly where this would entail a significant reshuffling of the wage structure of a kind, which, as a rule, can more easily be accomplished under conditions of steeply rising industrial wages. In turn, this has hampered the shift of labour between branches and the implementation of other measures needed for more efficient labour management. Faced with the problem of choosing between the provision of a wage determination framework which would promote the rational utilization of labour resources on the one hand, and the braking of production cost increases on the other, some countries have opted for steps in the direction of the former. The average wage was permitted to rise faster than the growth of labour productivity. But over-all "non-consumption" expenditure (investment, social consumption and net export) could not be reduced accordingly, and there appeared disequilibria in the consumer market which adversely affected the quality and structure of production.

THE SOVIET UNION

Gross industrial production in the Soviet Union increased at a rate of 3.4 per cent in 1979. Some details on planned and actual growth, with a breakdown by producer and consumer goods, are given in the following table.

Soviet Union: growth of gross industrial production
(*Annual percentage change*)
A = yearly targets, five-year plan; B = yearly targets, annual plan; C = Actual

	1976	*1977*	*1978*	*1979*	*1980*
Industry total					
A	4.3	6.3	6.0	6.9	8.2
B	4.3	5.6	4.5	5.7	4.5
C	4.8	5.7	4.8	3.4	..
Producer goods					
A	4.9	6.6	6.4	7.1	8.0
B	4.9	5.9	4.7	5.8	4.5
C	5.5	5.9	5.3	3.5	..
Consumer goods					
A	2.7	5.7	5.1	6.1	8.6
B	2.7	4.9	3.7	5.4	4.5
C	3.0	5.2	4.0	3.3	..

Sources: Law on the State five-year plan for the development of the national economy of the Soviet Union in the period 1976-1980; annual plans and plan-fulfilment reports.

CHART 3.1

Industry: output and factor inputs

(Indices, 1968-1972 = 100)

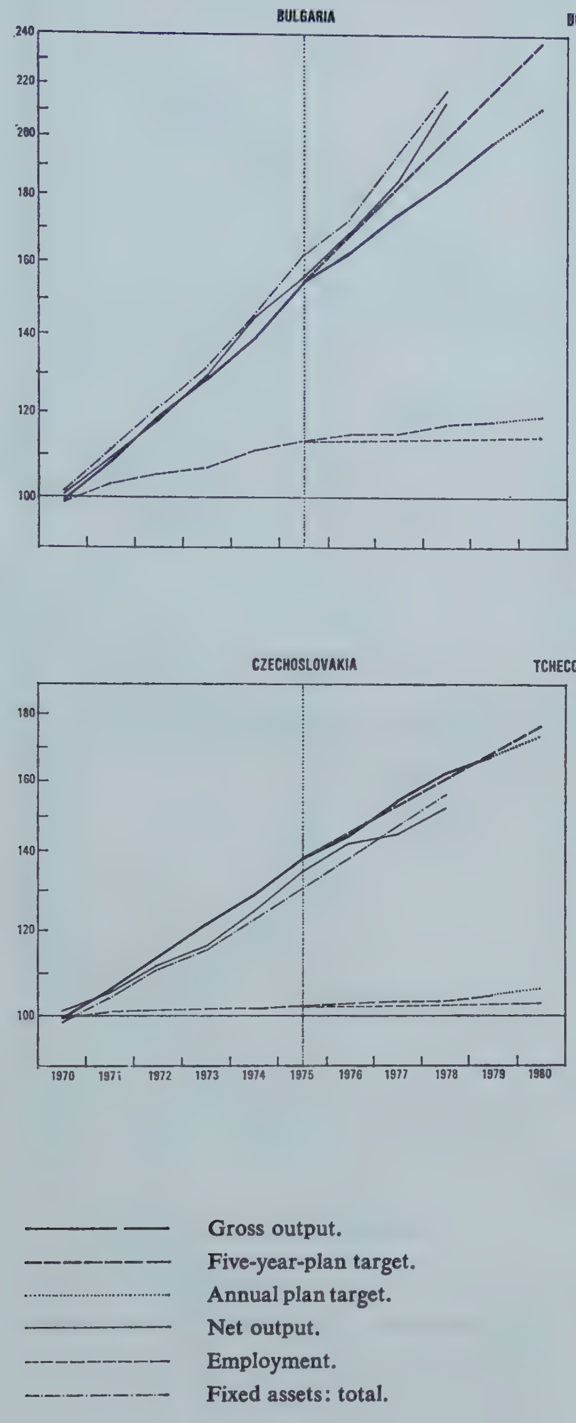


CHART 3.2

Industry: efficiency indicators

(Indices, 1968-1972 = 100)

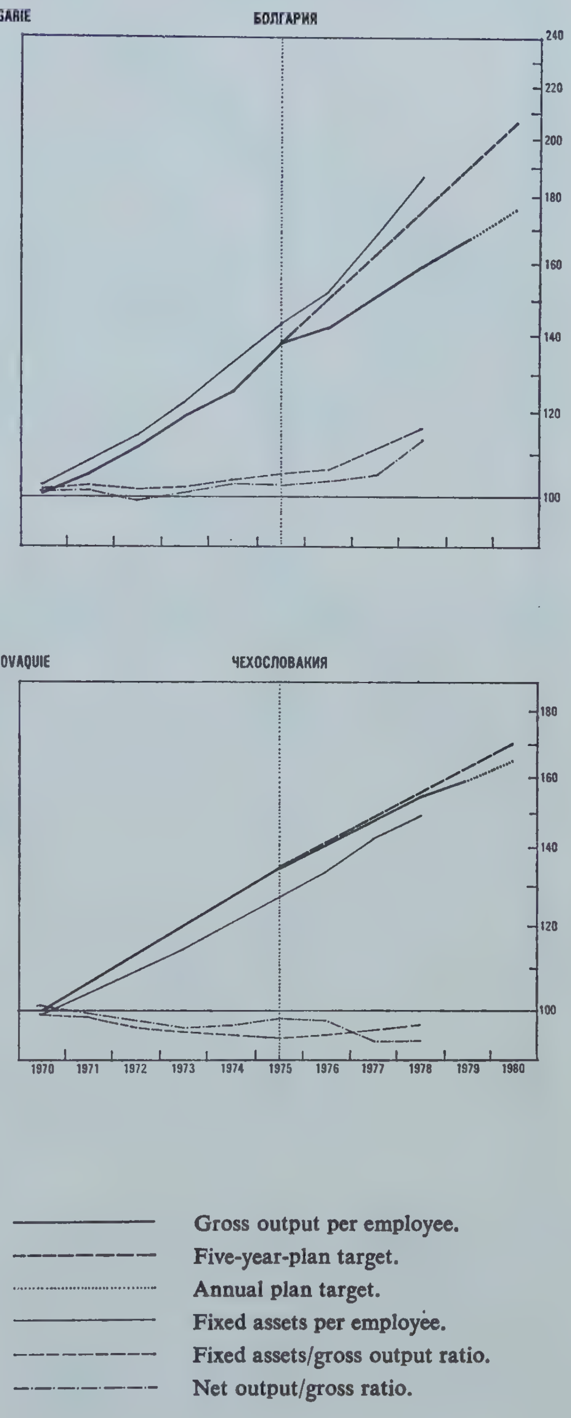


CHART 3.1 (*continued*)

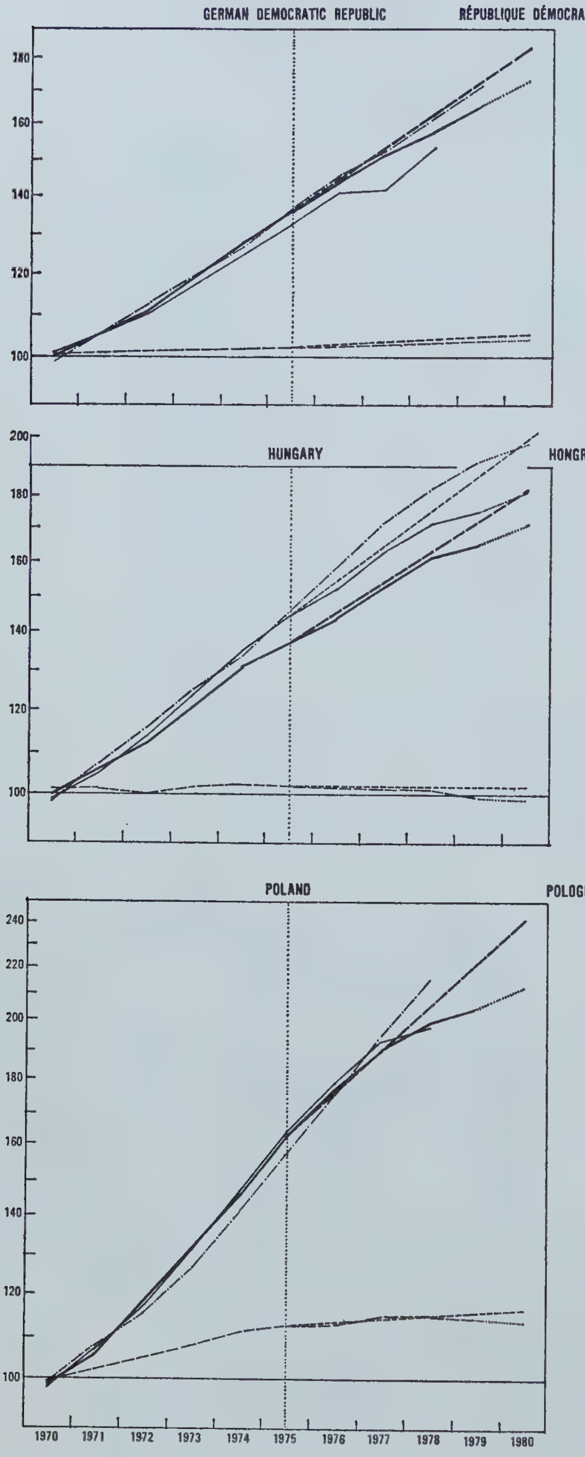


CHART 3.2 (*continued*)

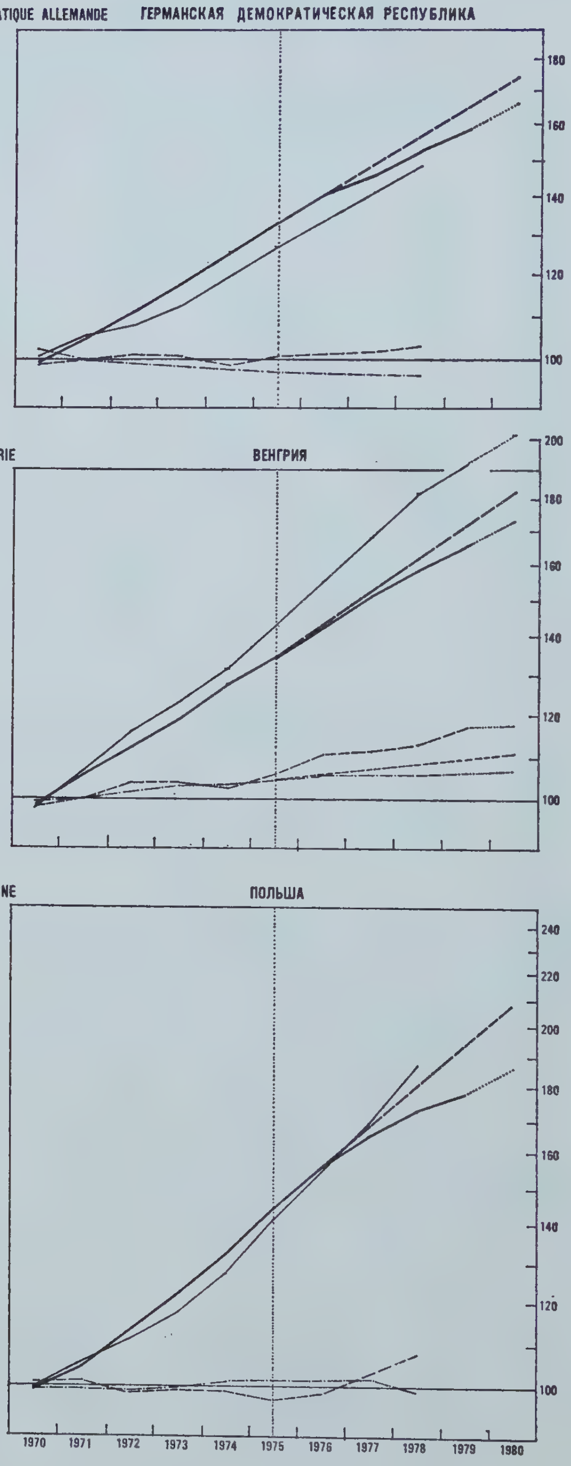


Chart 3.1 (*concluded*)

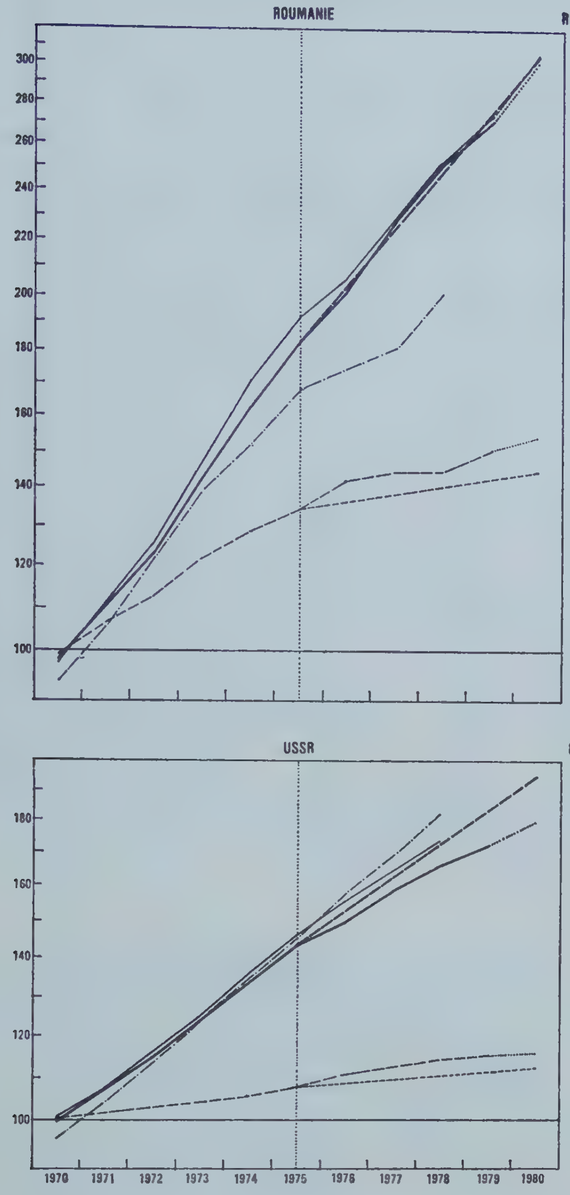
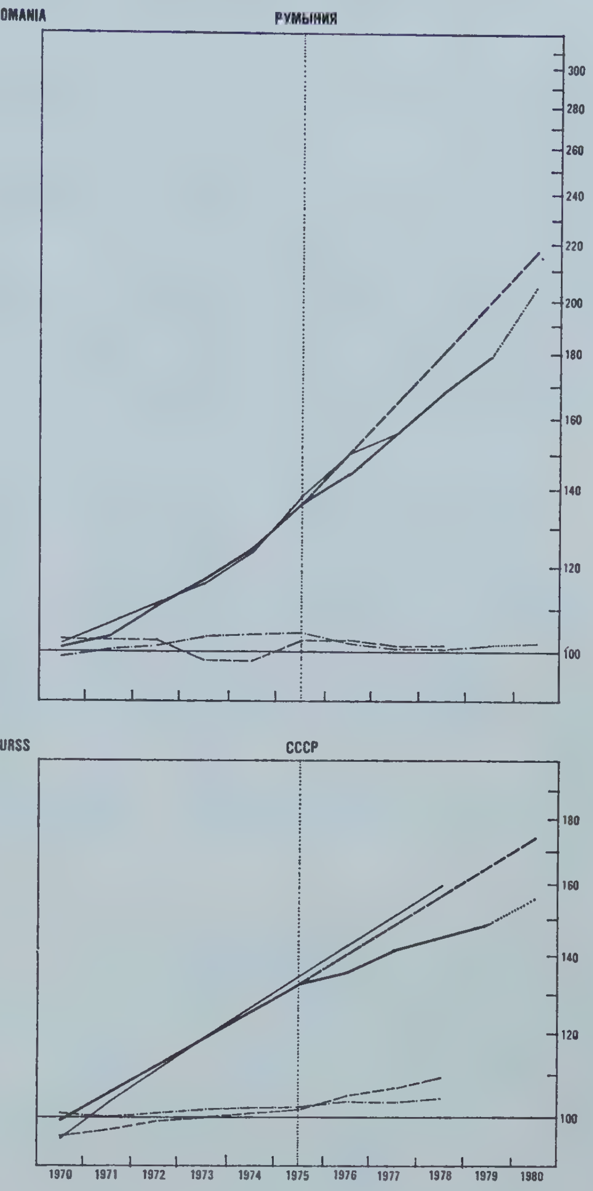


Chart 3.2 (*concluded*)



Soviet quarterly industrial production

(*Percentage change over the corresponding quarter of the previous year*)

	Q1	*Q2*	*Q3*	*Q4*
1975	7.5	8.0	7.9	6.6
1976	4.8	5.1	4.5	4.8
1977	5.6	5.8	6.0	5.4
1978	5.5	5.0	4.0	4.8
1979	3.0	4.0	4.1	2.5

Source: Plan-fulfilment reports.

The decline in the growth rate began in the first quarter of the year, when owing to unfavourable weather and resulting difficulties in transportation and supply, production in a number of important sectors fell significantly behind target. There was a partial recovery in the second and third quarters, but the last quarter of the year brought a new setback resulting in part from the poor 1979 harvest.

The deceleration in industrial growth in 1979 was widespread among branches. Among the predominantly producer-goods branches, the engineering industry continued to expand production at a fast rate. However, there was only moderate growth—between 2 and 3 per cent—in the output of the electric power, fuel and chemical industries, and zero growth or even declines in the output of metallurgy, construction materials and the wood and paper industries (table 3.3). The two major predominantly consumer-goods branches, the light and food industries, both expanded production at a rate of 2 per cent. The growth in output of producer goods in total amounted to 3.5 per cent, and of consumer goods to 3.3 per cent, as against 5.3 per cent and 4.0 per cent attained in 1978.

TABLE 3.3

Gross output by major branches

(*Annual percentage change*)

	Electricity and heating	Fuel	Ferrous metallurgy	Non-ferrous metallurgy	Engineering and metal working	Chemicals and rubber	Construction materials	Glass and China	Wood and wood processing	Pulp and paper	Textiles	Clothing	Leather and fur	Food processing
Bulgaria														
1976	9.0	0.3	13.7	..	10.7	4.9	8.0	8.5	4.3	2.0	5.3	2.2	0.5	10.8
1977	8.2	6.3	6.3	..	15.0	12.4	7.8	6.9	3.2	3.9	4.6	1.4	3.0	−1.5
1978	6.6	3.9	4.6	..	11.0	10.0	10.4	6.0	1.0	6.0	6.1	2.2	—	3.2
1979[a]	5.5	7.8	7.1	..	4.6	5.8	10.1	−11.4	−0.7	10.6	4.9	−0.7	12.0	10.1
Plan 1980	11.0		..	..	10.0	13.0	..	3.5						4.5
Czechoslovakia		[b]				[c]								
1976	5.9	1.2	3.9		8.4	9.0	7.2	7.4	7.3	6.9	1.1	4.1	3.5	−0.6
1977	6.1	0.8	2.9		6.9	6.7	4.3	4.1	6.0	4.1	3.5	3.7	3.1	6.4
1978	4.6	2.0	3.9		6.5	5.9	6.0	3.5	6.3	3.3	4.4	3.9	3.1	3.9
Plan 1979	4.0	−1.0	..		6.9	..	5.6	5.9	6.4	3.7	4.2	5.4	3.5	4.1
1979[d]	−11.1	1.3	2.0		6.6	2.9	3.0	4.6	5.0	2.8	3.9	4.3	2.8	2.0
Plan 1980	2.8		..		5.9	3.1	..	3.9						..
Hungary														
1976	7.6	0.2 [e]	3.6		5.5	10.8	3.4	..	5.2	5.1	3.7	1.2	−1.6	1.4
1977	7.6	3.8	4.2		6.9	6.9	5.8	..	3.0	8.2	3.4	0.2	4.2	9.9
1978	10.1	3.2	2.7		6.0	10.7	6.8	..	7.3	4.3	0.1	1.4	3.9	0.4
1979	2.9	−0.6	2.6		2.7	4.6	3.4	..	4.0	2.5	−0.4	0.8	−4.1	3.6
Poland														
1976	7.6	4.6	4.2	7.4	13.5	10.8	5.8	14.0	11.5	8.7	9.0	8.9	6.9	5.2
1977	5.0	5.6	5.6	4.7	10.2	4.4	4.1	12.8	9.7	5.3	6.0	5.6	2.5	3.3
1978	7.1	4.9	6.4	6.1	5.8	3.9	2.1	9.5	5.1	−1.2	2.6	2.3	4.7	4.4
Plan 1979	1.6		4.5		5.3	7.8	..	..	4.2		4.8			5.1
Plan 1980	3.6		3.3		5.1	3.5	..	..	6.3		4.1			3.8
Romania														
1976	9.2	7.3	11.5	7.6	12.2	16.1	14.3	7.6	4.5	9.7	16.0	11.0	10.0	9.5
1977	4.3	4.9	15.9	5.4	15.2	13.9	16.5	10.4	10.0	12.3	12.0	8.0	11.0	11.5
1978	6.1	4.4	8.5	6.2	14.7	10.6	15.7	11.7	7.7	4.8	8.5	6.6	7.4	0.8
1979	1.8	0.6	8.0	3.7	11.7	1.0	12.8	..	4.0	..	8.1			7.7
Soviet Union														
1976	7.8	3.8	4.7	2.0[f]	9.2	7.9	3.5	8.5	2.0	5.0	3.2	4.0	3.3	−1.5
1977	3.4	3.8	2.4	2.0[f]	8.9	6.5	2.9	8.7	2.2	5.0	2.3	4.0	3.2	4.6
1978	5.0	3.0	2.3[f]	0.9[f]	9.0	6.0	3.0	4.3	4.0		3.1	4.0	3.8	3.0
1979	3.6	2.0	−0.1[f]	0.1[f]	8.0	3.0	−1.0	..	2.0		2.0			2.0
Plan	4.0	3.6	..	..	6.5	9.0	..	..	...		4.3			3.8

Source: As for table 3.1.

Note: The data pertains in certain cases to centrally administered industry.

[a] 9 months.

[b] Coal mining and processing.

[c] Including oil refining.

[d] Plan in relation to the actual level in 1978. (Other plan figures relate to the plan as formulated before the final figures for the base year were available.) For industry as a whole the comparable figure was 4.2 per cent.

[e] Mining.

[f] Output of enterprises subordinated to the ministries.

Table 3.4

Soviet Union: output of some major industrial products

(Physical units)

	1975	1976	1977	1978	Plan 1979	1979	Plan 1980 Annual	Plan 1980 Five-year
Electricity (*billions of kWh*)	1 038.6	1 111.4	1 150.1	1 201.9	1 265	1 239	1 295	1 380
Coal (*millions of tons*)	701.3	711.5	722.1	723.6	752	719	745	805
Crude oil (*millions of tons*)	490.8	519.7	545.8	571.5	593	586	606	640
Natural gas (*billions of cu.metres*)	289.3	321.0	346.0	372.2	404	407	435	435
Steel (*millions of tons*)	141.3	144.8	146.7	151.4	156.1	149	157	168.5
Finished steel (*millions of tons*)	98.7	101.4	102.1	105.4	108.7	103	109	117.5
Steel pipes (*millions of tons*)	15.97	16.81	17.02	17.55	18.2	18.2	18.5	19.8
Electric power generators (*thousands of MW*)	17.1	16.6	17.9	18.2	..	17.0	..	..
Turbines (*thousands of MW*)	18.9	19.6	19.0	18.3	..	20.0	..	..
Motor cars (*thousands*)	1 964	2 025	2 088	2 151	2 200	2 173	..	2 297
of which:								
Passenger	1 201	1 239	1 280	1 312	..	1 314	..	..
Trucks	696	716	734	762	..	780	..	..
Buses	67	70	75	77	..	79	..	..
Tractors (*thousands*)	550	562	564	576	..	557	..	..
Mineral fertilizers[a] (*illions of tons*)	90.2	92.2	96.8	98.0	111	94.5	111*	143
Plastics and resins (*thousands of tons*)	2 842	3 058	3 309	3 516	3 800	3 520	..	5 739
Synthetics and artificial fibres (*thousands of tons*)	955	1 020	1 088	1 131	1 200	1 100	..	1 460
Cement (*millions of tons*)	122.1	124.2	127.1	127.0	130	123	..	144.5
Commercial timber (*millions of cu.metres*)	312.4	302.1	296.0	283.6	..	268	293*	..
Pulp (*thousands of tons*)	6 815	7 204	7 448	7 581	..	..	..	9 130
Paper and cardboard (*thousands of tons*)	8 583	8 916	9 064	9 236	10 200	8 700	9 500	9 870/10 800
Fabrics (*billions of sq.metres*)	9.96	10.28	10.41	10.65	..	10.70	..	12.75
Meat[b] (*thousands of tons*)	9 862	8 368	9 118	9 600	..	9 500	..	..
Sugar (*millions of tons*)	10.38	9.25	12.04	12.21	..	10.60	..	..

Sources: As for table 3.1. [a] Conventional units. [b] Industrially processed.

In the *energy* sector a bright spot was the above-plan 9.3 per cent increase in the output of natural gas (table 3.4). Output of crude oil rose 2.5 per cent to a level of 586 million tons, whereas coal output actually declined from 724 to 719 million tons. There was a relatively slow increase in the output of electricity (3.1 per cent). However, the capacity of electric power stations rose 4.4 per cent, reversing the relationship between these two indicators recorded in the preceding year.[72]

In terms of calorific content, the aggregate production of primary energy[73] in the Soviet Union rose by around 2 per cent in 1979. This compares with a figure of 4.3 per cent in 1978, 4.7 per cent in 1977 and 5.7 per cent in 1976. As detailed in Section B, the problem created by this falling trend is central to the entire economic development of the region. The slowdown is the result of the rapid depletion of deposits in "old" producing regions, and the immense difficulty of exploration and development of new resources far from the main consumer areas and, in most cases, located in climatically hostile regions.

Growing efforts are presently being made in the Soviet Union to reverse the decline in the growth of energy production, and to achieve economies in energy consumption. The problem of assuring adequate energy supplies in the interim has been the subject of a special Government resolution adopted in June, 1979; the importance of fulfilling planned assignments for the production, shipment and reduced consumption of fuel was emphasized, and the need to mobilize efforts in this direction restated. It was stressed that whatever the future growth of energy supplies may be, energy saving will continue to be a major nationwide task. A special commission has been established to deal with ways of solving the energy problem.

In *metallurgy*, the output of raw and finished steel remained at about the level attained in 1978, and output of steel pipe continued to rise at a rate of around 3 per cent. In recent years slow and below-planned growth of metallurgy, accompanied by a fast rate of expansion of engineering and pipeline construction reinforced an already strained supply situation. New construction of steel-making capacity has been lagging; and while significant investments were made in modernization (oxygen conversion, electrolysis, continuous processing) the industry has often come under criticism for inadequate progress in improving the structure of output. Excessive use of metal is accompagnied by shortages—particularly in the supply of high-quality products. Special concern is presently being expressed with regard to the programme

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[72] In 1979 the increment in capacity amounted to 10,900 MW against 8,300 MW in 1978. The growth of output and of capacity during recent years was as follows:

	Percentage change 1976	1977	1978	1979
Output	7.0	3.4	4.5	3.1
Capacity	5.0	4.2	3.2	4.4

[73] Excluding peat, oil shale and wood.

Soviet Union: output of the engineering and metal-working industry
(Annual percentage change)

	1976	*1977*	*1978*	*1979*	*Plan 1979*
Output by ministry					
Heavy industry and transport machinery	6	5	6	0.8	4.3
Machinery and equipment for the power industry	9	6	5	4	5.8
Equipment for construction, road-building and civil engineering	7	5	3	4	6.1
Machine building for the chemical and petroleum industries	8	8	6	6	6.2
Machine-tool industry	10	10	9	7	..
Motor-vehicle industry	8	8	9	7	..
Tractors and farm machine building	7	6	6	4	..
Machine building for light industry, the food industry and household appliances	8	7	6	4	..
Electrical equipment industry	8	7	5	3	..
Instrument-making, automation systems and control systems	12	11	10	9	8.9
Machinery for livestock breeding and fodder production	11	10	9	7	7.5
Output of selected categories of products					
Equipment for the chemical industry	8.1	7.1	6.1	4.2	..
Equipment for light industry	4.9	7.6	7.0	5.1	..
Equipment for food processing	6.9	6.9	2.4		
Automation systems	11.4	11.6	12.1	11.0	..
Computers and computer parts	18.1	23.9	21.1	14.7	..
Metal-cutting machines	7.7	10.2	9.1	4.9	..
Forging and pressing machines	14.2	7.2	9.3	6.7	..
Agricultural machinery	6.4	5.0	8.0	4.2	..

Sources: National statistics and plan-fulfilment reports.

of technological reconstruction which is not progressing satisfactorily. Concern is also directed to slow progress by the metal-consuming industries in introducing metal-saving technology.

Engineering production expanded at a rate of 8 per cent in 1979—close to the steady 9 per cent rate of the preceding three years. However, changes in the growth rates of the various sub-branches were substantial, as the table above shows. Particularly notable is the sharp decline in growth of output of enterprises under the Ministry of Heavy Industrial and Transport Machinery.[74]

Among the priority sub-branches, the expansion of output of enterprises under the Ministry of Power Engineering was also relatively slow. The output of this group is presently undergoing far-reaching changes, with the share of equipment for atomic power stations rising sharply. Larger power units are also being built for thermal and hydroelectric power stations. In 1978, the first stage of the nuclear power engineering plant "Atommash", near Volgodonsk, was commissioned with capacity for producing three 1,000 MW reactor units. In 1979, capacity for the production of a further 1,000 MW unit was introduced and expansion to a total of 8,000 MW is planned. Output of such units will be on a serial basis, using highly specialized machinery and installations.

The machine-tool and tool industry was among those singled out for non-fulfilment of the production plan in 1979. At 7 per cent, the output growth rate of enterprises under the ministry had fallen below the average for engineering as a whole; the average growth rate during the last four years was 9.0 per cent, against a five-year plan target of 10 per cent. The lag is apparently due to difficulties in implementing an accelerated programme of qualitative improvement which emphasizes digital-programme controlled machine-tools, multi-functional machine-tools, precision metal-cutting machines and various other high technology metal-working machinery.

In 1979 the output of passenger cars remained at the same level as for the previous year—1.31 million units. Similarly, no increases were reported in the output of major electrical appliances apart from a 26 per cent increase in the output of colour television sets.[75]

The *chemical industry* was particularly affected by the weather conditions in the early part of 1979, and its growth during the year was the lowest in the post-war period. There was a decline in the output of chemical fertilizers, and no change in the output of plastics and resins nor in the output of another priority item—synthetic and artificial fibres. However, a large volume of new production capacity was put into operation during the year and a sharp recovery in the growth rate is planned for 1980.

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[74] The Ministry is a major supplier of mining and extraction machinery and metallurgical equipment, as well as of diesel generators, locomotives, railroad cars and equipment for shipbuilding.

[75] The latter reached a level of 1.8 million units out of a total of 7.3 million television sets.

Difficulties in transportation were apparently responsible for a 2 per cent decline in the output of the *wood-working and paper industries*. Output of commercial timber, and of paper and cardboard, both declined by 6 per cent despite significant additions to production capacity in the latter case.[76] Steep increases in the production of both these materials are planned for 1980: output of commercial timber is planned to increase by 25 million cu m or 9.3 per cent; output of pulp is to rise by 16.6 per cent, paper by 7.1 per cent and cardboard by 12.1 per cent. It should be noted that output of commercial timber also declined between 1975 and 1978, though at a slower rate than in 1979.

Within *light industry*, a 4.6 per cent increase in the output of ready-made clothing was recorded, the level of production of fabrics, knitted goods and leather footwear remaining unchanged. In the food industry, growth was similarly spotty; the production of such important items as meat and meat products, butter, milk and milk products, vegetable oils and particularly sugar declined sharply.

Output of "cultural amenity goods", the third major component of consumer-goods output (beside that of light industry and food processing) rose by 5 per cent in 1979.[77] Recent performance and plans for this aggregate are shown in the text table below:

Output of cultural amenity goods in the Soviet Union
(*Annual percentage change*)

1976	*1977*	*1978*	*Plan 1979*	*1979*	*Plan 1980*
7.2	7.6	7.6	7.8	5.0	10.0

Sources: As for table 3.1.

Among the quantitative indices currently used as a yardstick of technological progress and of improvement in efficiency, a total of 3,500 new articles was reported to have been put into serial production and a total of 1,800 obsolete items withdrawn. The volume of production carrying the highest quality mark rose 23 per cent. By the end of the year, the number of industrial articles allowed to carry the State sign of quality totalled 75,000.

In the *Byelorussian SSR*, industrial production continued to rise rapidly, by 6.9 per cent against a plan target for the year of 6.2 per cent and 8.0 per cent attained in 1978. An expansion of 15 per cent was registered in the fuel industry, 11 per cent in engineering and 9 per cent in the chemical industry. Output of the light industry rose by 5 per cent and of the food industry by 2 per cent. Among sub-branches of the engineering industry, output of the Ministry of Machinery for Livestock Breeding and Fodder Production continued to increase particularly fast—by 19 per cent. Also above the branch average was output growth of the Ministry for Instrument Making, Automation and Control Systems, which reached 12 per cent. The growth of industrial labour productivity amounted to 4.2 per cent and the increase in the average wage was around 3.5 per cent.

In the *Ukrainian SSR*, industrial production rose by 3.0 per cent against 5.2 per cent planned and 4.5 per cent recorded in 1978. Expansion continued at a relatively fast pace in engineering (7 per cent) and in the light industry (4 per cent). Chemical industry output rose by 3 per cent, whereas output levels in the fuel industry, metallurgy, the wood and paper industry, construction materials and the food industry remained practically unchanged compared with 1978. Coal output declined by 2.8 per cent (following a similar decline in 1978); output grew slowly or declined slightly in the case of steel, chemical fertilizers, chemical fibres, paper and some other important products. Industrial labour productivity rose 1.6 per cent and the average wage by around 2.3 per cent.

EASTERN EUROPE

In *Bulgaria*, gross industrial production rose by 6.5 per cent in 1979. Although 1.3 percentage points below the plan target, growth remained well in line with recent annual growth performance of 6-7 per cent. One contributing factor was an improvement in agricultural supplies following the 1978 harvest, which permitted an acceleration in the growth of food industry output from 3.2 to 6.5 per cent. There was also a marked acceleration in the growth of the fuel industry (from 3.9 to 8.4 per cent) and, according to data for the first nine months of 1979, a more modest upswing in some other branches (table 3.3). Significantly slower than in 1978 was the growth of engineering output and of construction materials production. This was apparently associated primarily with the low level of investment rather than slower growth of deliveries for export. Tightness in the supply of basic materials was reported as a factor in the non-fulfilment of production plans in a number of areas. Industrial labour productivity rose 6.2 per cent, somewhat faster than in the preceding year. The average industrial wage rose by 5.0 per cent.[78] The Bulgarian metallurgical industry is currently undergoing a process of reconstruction and modernization. This includes the raising of the share of carbon steel and of steel alloys in total output. The 4.5 per cent increase in the output of ferrous metallurgy registered in 1979 was apparently more the result of changes in the structure of output than increases in the tonnage of production. Output of pig iron was lower; output of crude steel rose by 0.6 per cent and of rolled products by 2.5 per cent over 1978 levels.

In the engineering industry, further steps were made towards the development of new lines of specialization, including computers and electronic calculators, equipment for automation, robots and other high technology equipment. Among the main export items, the 41 per cent increase in the output of electric trucks was particularly large. Output of electric telphers rose by 7.8 per cent. In the light industry, the growth of the clothing and leather footwear sub-branches continued to be slow. In the food industry, notable gains were recorded in output of dairy products, while production of industrially processed meat rose by 4.3 per cent.

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[76] In 1978 capacities were commissioned for 114,000 tons of newsprint and 17,000 tons of wrapping paper. The 1979 plan envisaged the putting into operation of a production capacity of 135.4 thousand tons of paper.

[77] The category consists of all consumer durables and household goods except for passenger cars.

[78] According to data for the first nine months.

Electricity production rose by 3.2 per cent, and—for the first time in recent years—there was a significant increase in the output of coal (14 per cent). A similar increase in coal output is expected in 1980, new mine capacity of 2.4 million tons being scheduled to come into operation. There will also be a 13.7 per cent increase in electricity production, mostly due to the commissioning of new atomic power capacity (two 440 GW reactor units at Kozloduy). While continuing to develop production potential, Bulgaria also took new measures to reduce energy consumption. In 1979, the systems of international and inter-district transport were unified in order to ensure the maximum loading of all vehicles. The programme of fuel allocation was reinforced in order to reduce electricity consumed for street lighting. Finally, a programme was elaborated for the conversion of certain categories of motor vehicles to the use of liquid gas fuel. Petrol prices were greatly increased at retail level, and surcharges introduced for petrol used by economic organizations at quantities in excess of assigned limits.

In July 1979, an important step was taken to improve the planning and management system; the number of centrally imposed plan indicators was reduced. Henceforth, the obligatory indicators handed down to economic organizations will relate to the quantities of raw and basic materials entering the national material balances, the number and value of important machines and equipment, employment limits, the planned value of net output and foreign currency earnings and expenditure targets. The economic organizations themselves will henceforth be free to elaborate all other plan indicators and to fix production according to demand, available production capacity and deliveries of production materials. They were also given greater leeway in the distribution of earnings.[79]

Closer links have been established between industrial and foreign trade activities. An important feature of the new regulations relating to this area was the introduction of annual correctives to foreign trade prices (so-called "planned foreign trade price indices") listed according to commodity groups. These indicators will provide a guide when concluding import and export contracts and in turn are to be used by production enterprises in the formulation of their import needs, production and export delivery plan-targets. The regulations envisage the possibility of revising these indicators in the course of the plan year, in which case the industrial and foreign trade organizations concerned are obliged to adjust production and trade plans accordingly.[80] Some exceptions to this rule will, however, be allowed.

An overhaul of the industrial price system will complement these changes. The new prices—effective from 1 January 1980—are designed to reflect recent changes in the cost of materials, and to bring profits more into line with production costs. They will reduce the need for subsidies from the State budget and, by providing a more accurate yardstick of economic performance, should contribute to increasing the efficiency of production programming.

In *Czechoslovakia*, gross industrial production expanded by 3.7 per cent in 1979. Difficulties in the energy supply situation were aggravated by the effects of a poor harvest. Industrial costs per unit of output were reported to have declined by 0.6 per cent; within this, the cost of energy and materials (at constant prices) fell by 0.8 per cent and wage costs by 0.3 per cent.[81] However, the relationship planned between labour productivity and wages was not achieved.

The growth of final sales fell sharply from 5.8 per cent in 1978 to 2.8 per cent in 1979. Deliveries for personal consumption rose by 2.5 per cent, for investment by 1.8 per cent and for export by 3.6 per cent. The comparable figures for recent years and the targets laid down for the current five-year plan period are shown in table 3.5.

The electric power industry was strongly affected by fuel shortages: output declined by 11.1 per cent, reflecting a sharp decline in the output of heat and steam, and to a lesser extent of electric power. Output of electricity from thermal power stations declined by 5.5 per cent, but the decline in the total production of electricity was limited to 1.6 per cent thanks to the contribution of output from the newly opened Jaslovskie Bohunice atomic power station. Output of coal rose by 1.2 per cent. Output of metallurgy rose by 2 per cent, of which ferrous metallurgy by 1.9 per cent and non-ferrous metallurgy by 2.8 per cent. The chemical industry[82] expanded production by 2.9, the rubber and plastics sub-branch attaining a growth of 5.4 per cent.

The engineering industry was able to maintain growth at the same rate as in the preceding year—6.6 per cent, with heavy machine building up by 6.0 per cent and general engineering by 6.9 per cent. Sub-branches with special development programmes expanded production by 9.5 per cent;[83] putput of equipment for atomic power stations rose by 95.9 per cent,[84] opencast mining machinery by 47.8 per cent, micro-electronics by 36.2 per cent and numerically controlled machine tools by 22.3 per cent. The glass, woodwork, textile and clothing industries continued to expand production at rates ranging from 4 to 5 per cent. Deceleration was more pronounced in the food industry, where the growth rate fell from 3.9 per cent in 1978 to 2.0 per cent in 1979.

Although 1979 was a difficult year for Czechoslovak industry, some important achievements were recorded. As already indicated, the policy of selective development within the engineering industry exerted a strong influence on production. There was a markedly better response to efforts to adapt the structure of production in line with the need to redress geographical imbalances in foreign trade. The efforts to adapt the demand structure of certain branches of the light industry, in particular by encouraging import substitution in raw and basic materials, can be termed successful—despite problems that arose from changes in the commodity structure of supplies.

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[79] Income after payments to the central State and to local budgets, payments to the industrial ministries, loan and interest payments to banks, insurance, etc. and after payments into the "expansion and technological improvement" fund can be redistributed, according to certain criteria, into the "salary fund" "reserve fund" and "social and cultural undertakings fund". However, the maximum income that can be allotted to these three funds is limited by demonstrated gains in labour productivity.

[80] Such revisions are to take place when world market prices differ from those underlying the correctives by more than 5 per cent.

[81] According to the five-year plan, industrial costs were to decrease at an annual rate of 0.8 per cent, those for energy and materials decreasing at the same rate.

[82] Includes oil refining.

[83] These sub-branches account for some 35 per cent of engineering output.

[84] Czechoslovakia is a major participant in the CMEA programme for the development of nuclear power. Around 7.5 billion crowns is being invested in nuclear engineering in the period 1976-1980 and some 12 billion crowns spent on research and development.

New measures to bring about economies in the use of energy were incorporated in the draft of a special long-term programme directed to this end which was published in October 1979. The programme foresees a reduction in relative energy use of 11 million tons of fuel (standard coal equivalent) by 1985, rising to 25 million tons by 1990.

In the *German Democratic Republic*, industrial production measured in terms of "commodity output" rose by 4.8 per cent in 1979. Difficulties encountered in the early part of the year affected in particular the output of metallurgy, basic chemicals and building materials. The sector controlled by industrial ministries attained a growth rate of 5.3 per cent in output and 4.4 per cent in labour productivity. Consumption of industrial raw materials rose by 1.3 per cent, with electricity consumption remaining at the level of the preceding year. While no firm data are available on the growth of the average industrial wage, there is an indication that it expanded less than labour productivity.

Some notion of the structural pattern of industrial growth in the German Democratic Republic can be obtained from the plan figures tabulated below (no adequate data on actual performance are available for 1979). The high priority accorded to the electrical engineering and electronics industries in the five-year plan was even more apparent in the annual plans for 1978 and 1979. However, the emphasis given in the medium-term plan to machine tools and metal-working machinery has been less in evidence in the recent annual plans. The wide disparity in the figures for light industry are also worthy of note, and although annual plan targets can only provide an approximate guide to actual growth figures, it would appear that a widening gap has developed between the originally planned and actual growth paths of this industry.

Output of electricity rose by 0.9 per cent with some supplies apparently having been obtained from the fourth 440-MW block put into operation at the Greifswald nuclear power station. Coal output remained at the level of 1978. A positive contribution to the energy balance was the 19 per cent increase in imports of natural gas.

In metallurgy, significant increases took place in the output of hot-rolled steel (9.4 per cent), rolled strip (7.3 per cent), and lightweight cold-formed steel sections (11.5 per cent). In engineering, the emphasis on electronics was reflected in a 23.8 per cent increase in semi-conductor elements and electronic components. Output of metal-cutting machines rose 6.9 per cent and of metal-pressing machines by 10.6 per cent. The output of agricultural machinery rose at the particularly high rate of 10.6 per cent. Within light industry, there was a 7.7 per cent increase in the output of knitwear, but output of outerwear clothing rose by only 0.3 per cent. No data are available on production in the other major sub-branches of the light and food industries.

As reported in last year's *Survey*, industry in the German Democratic Republic has undergone a far-reaching reorganization in recent years with a view to tightening up links between science and production and creating conditions for the speedier introduction of rationalization measures and better technology into industrial processes. The formation of "*Kombinate*" in industry is now coming to an end, and it was reported that there are at present 110 such organizations forming the skeleton of the organizational structure. They account for 90 per cent of industrial production and employment and concentrate practically all industrial R & D potential. This high level of concentration implies a new approach to the planning and management process—notably with regard to the role of industrial management in the elaboration of medium- and long-term plans, its participation in investment decisions, in the choice of technology and in the programming of production.

German Democratic Republic: planned growth of commodity output by industrial industries
(*Annual percentage change*)

	Annual plan					*Five-year plan 1976-1980*
	1976	*1977*	*1978*	*1979*	*1980*	
Coal and energy	4.9	3.9	4.8	4.9	4.4	5.1
Ore mining, metallurgy and potash	4.5	4.0	3.4	2.9	4.3	4.9
Chemicals	7.4	6.2	6.7	5.8	5.7	7.7
Heavy engineering and complete installations	6.2	6.4	6.7	6.2	6.0	6.9
Machine tools and metal-working machinery	9.1	7.6	8.0	7.5	7.8	9.3
General and agricultural engineering and vehicles	6.6	7.2	6.7	7.9	7.1	7.3
Light industry	7.4	5.2	5.9	3.9	2.4	7.0
Glass and ceramics	8.5	7.2	6.9	5.0	6.2	7.6
Food processing and local industry	6.7	6.1	5.9	5.5	4.4	6.0
Total	6.7	6.0	5.0	5.8	5.4	..

Source: National plans.

TABLE 3.5

Eastern Europe: industrial deliveries

(Percentage structure and annual percentage change)

Country and period	*Total*	*Intermediate consumption*	*Final use*			*Export*
			Total	*Personal consumption*	*Investment*	
Czechoslovakia						
Percentage structure in 1976	100.0	65.9	34.1	14.6	4.2	11.7
1976	4.9	5.0	4.7	1.8	5.1	8.3
1977	5.1	5.0	5.2	3.7	6.0	7.5
1978	..	..	5.8	5.3	5.4	6.6
1979	..	..	2.8	2.5	1.8	3.6
Plan 1980	..	..	4.1	..	..	6.8
Plan 1976-1980	..	..	5.7*	4.1-4.4	3.7	8.1-8.3
Hungary						
Percentage structure in 1975	100.0	51.5	48.5	21.9	3.0	23.6
1976	3.6	3.1	4.1	1.6	1.5	6.8
1977	7.2	4.6	10.1	3.6	20.5	14.5
1978	4.7	4.9	4.4	4.7	16.3	2.6
1979	..	..	..	2.7	4.6	11.9
Poland						
Percentage structure in 1975	100.0	44.1	55.9	29.8	3.5	22.6
1976	10.7	..	..	..	..	..
1977	8.6	..	..	11.1	..	..
1978	5.8	..	..	..	..	..
1979	2.8	..	..	4.1	..	4.4
Plan 1980	3.0-4.2	..	5.6	5.5	−8.0	8.9
Plan 1976-1980	8.9-8.5	..	..	10.3	..	12.7

Sources: As for table 3.1.

New organizational forms with regard to foreign trade are being developed[85] and various proposals are being considered to provide a better link between the activities of the *Kombinate* and the needs of the localities where individual plants are located. The transfer of certain responsibilities exercised by ministries and other central authorities to the management of the *Kombinate* [86] should free the former to concentrate on basic planning and management questions.

A number of new measures to save energy were introduced in the German Democratic Republic in 1979. In accordance with a decision of the Council of Ministers, the illumination of enterprises, shops, streets and other public places is to be reduced. Room temperatures have been uniformly fixed, the movement of empty vehicles eliminated, speed limits controlled, etc.

Following a policy of retrenchment made necessary by a deterioration in the foreign balance, *Hungary* planned a deceleration in the growth of industrial production. In the event, however, the 2.8 per cent growth performance in 1979 was significantly less than planned. Restriction of domestic demand was reflected in a decline in the growth of deliveries for consumption purposes—from a rate of 4.7 per cent in 1978 to 2.7 per cent in 1979. Deliveries for fixed investment fell from 16.3 to 4.6 per cent; by contrast, the growth of export deliveries accelerated from 2.6 to 11.9 per cent over the two years (table 3.5).

The policy of rationalizing resource use was reflected in a 1.6 per cent decline in industrial employment in 1979. Labour productivity increased by 4.5 per cent, which was more than the plan foresaw and only slightly less than in 1978. Growth in average industrial wages also declined from a rate of 8.4 per cent in 1978 to 5.5 per cent in 1979—again somewhat in excess of the growth of labour productivity, though by a margin narrower than in 1978.

Slower growth was registered in practically all industrial branches. Electricity output declined by 3.1 per cent. There was a slight increase in the volume of coal output, but production declined in terms of calorific content. Similarly, output of crude oil and natural gas declined and aggregate energy production in terms of calorific content fell nearly 6 per cent lower than in 1978. A slight decline in imports of crude oil was offset by a steep rise in imports of natural gas, and total energy consumption remained at levels similar to 1978.

Output of the metallurgy branches was maintained at a rate of 2.6 per cent. While steel output remained practically unchanged, imports declined by 12.6 per cent and exports rose by 33.1 per cent. There was little increase in aluminium output, but exports rose by 4.4 per cent.

The growth of engineering production declined from

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[85] At the present, the number of *Kombinate* endowed with the right to enter into foreign trade agreements is limited.

[86] The *Kombinate* are headed by directors. While some degree of differentiation between principal and subsidiary enterprises is foreseen, there should be no dilution of management power.

6.0 per cent in 1978 to 2.7 per cent in 1979. Total sales rose by 3.3 per cent, deliveries for export rising by 9.4 per cent while those to the domestic consumer market remained at the level of the preceding year. Deliveries for investment declined by 1.6 per cent. The chemical industry experienced a similar situation; the growth rate of 4.6 per cent, though still higher than that of all other major branches, was only one-half its level in the preceding year. Deliveries increased by 4.4 per cent, those for exports by 14.3 per cent, and those for the consumer market declined by 3.3 per cent.

The aggregate output of the light industry, broadly defined, [87] rose by a mere 0.5 per cent compared with the 3.2 per cent growth attained in 1978. Output of textiles declined by 0.4 per cent and leather and footwear by 4.1 per cent. A low level of internal as well as external demand was among the factors affecting the performance of these branches. The light industries were particularly affected by restrictions on imports of certain raw materials, imposed for the purpose of redressing the foreign trade imbalance. Over-all deliveries increased by 1.0 per cent, deliveries to the consumer market by 3.1 per cent, whereas deliveries for export remained at the depressed level of 1978.[88]

The food-processing industry succeeded in expanding production by 3.5 per cent as compared with a mere 0.4 per cent in 1978. However, there was no change in the growth of total deliveries, which remained at 0.8 per cent. Deliveries to the consumer market increased by 1.6 per cent and for export by 5.8 per cent, resulting in a decline in deliveries for intermediate use.

More effective use of resources, increased international competitiveness and generally better adaptation of production to market needs continue to be the primary goals of industrial policy in Hungary. In 1979 a further step was taken to enhance the guiding role of the price mechanism by permitting producers to fix prices of finished products in relation to those of similar imported goods. The "competitive" prices are intended to bring about a more market-oriented pattern of output and thus lower the demand for imports. The greater profits accruing to enterprises are allowed to be translated into wage increases, which in turn should help in redistributing the labour force towards the profitable sectors. Greater conformity is also being achieved between internal prices and the foreign currency cost of imported materials as well as with the prices on foreign markets. Improved methods of calculating profits and costs should help to weed out inefficient production and concentrate effort in areas where the gain that can be derived from reconstruction and modernization is largest.[89]

An energy programme up to 1990 was approved by the National Planning Committee in November 1979. It postulates a somewhat greater use of coal, output of which is to rise by some 3 million tons during the decade, and extensive development of nuclear power capacity. It foresees a growth of total energy consumption at a rate of 2.6-3.0 per cent, with electricity output rising at a rate of 4.8-5.2 per cent.

The year 1979 has been exceptionally difficult for industry in *Poland*. A hard winter, poor harvests, breakdowns in transportation and consequent supply difficulties, import and investment cuts together with difficult conditions on the export market were all factors which slowed down growth.

Industrial sales rose by 2.8 per cent. While no data on gross output are available, the growth of the latter was probably lower judging by past relationships between the two indices.[90] The growth of labour productivity was more satisfactory. Sales per employed person increased by 4.5 per cent. Even so, the rise was not sufficient to counterbalance the rise in labour and materials costs. The expansion in the average industrial wage, after having decelerated steadily from 14.3 per cent in 1974 to 5.8 per cent in 1978, was speeded up in 1979 to an estimated 11 per cent. This wiped out the near balance in the productivity-wage relationship which had been achieved with great difficulty in 1978, and added to pressures on the consumer market.

Poland: growth of labour productivity and wages in State and co-operative industry

	1974	*1975*	*1976*	*1977*	*1978*	*1979*
Labour productivity	8.9	9.4	8.9	5.8	5.1	..
Average wage (net)	14.3	13.6	9.7	7.1	5.6	10.8

Sources: As for table 3.1.

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[87] According to Hungarian classification light industry, in addition to the textile, clothing, leather and footwear industries, includes glass and china, wood and wood-working, and pulp and paper industries.

[88] Light industry had increased its total sales by 3.1 per cent in 1978. Deliveries to the consumer market rose by 5.6 per cent, and deliveries for export declined by 2.1 per cent.

[89] It was reported that one-third of enterprises operate at a loss. Another third is of low profitability and also in need of modernization of equipment and updating of production. Only one-third is considered to be competitive by world standards.

[90] Sales figures differ from gross output figures on account of changes in the volume of inventories and work in progress. More important are differences between the indices which arise as a result of different systems of valuation. Recent changes in the comparable indices pertaining to industries in the socialist sector were as follows:

	1974	*1975*	*1976*	*1977*	*1978*	*1979*
Gross output	11.5	11.0	9.3	6.9	4.9	..
Sales	12.5	12.6	10.7	8.6	5.8	2.8

Poland: industrial sales by branches in current prices

(Annual percentage change)

	Percentage structure in 1975	*1976*	*1977*	*1978*	*1979* [a]	*Plan 1980* [b]
Total	100.0	16.9	10.8	8.3	3.6	3.0-4.2
Energy	9.9	22.0	5.9	5.0	1.5	3.6
Metallurgy	8.9	21.1	5.9	6.6	0.6	3.3
Engineering	26.4	17.4	15.1	11.2	5.5	5.1
Chemicals	9.2	17.2	8.8	7.6	3.9	3.5
Minerals and construction	3.3	19.3	16.6	6.6	−1.8	5.8
Wood and Paper	4.5	24.3	11.4	4.9	−3.3	6.3
Light	148.0	13.1	9.6	7.4	1.3	4.1
Food	20.7	12.3	9.1	8.9	5.6	3.8
Other	2.3	21.0	21.9	..	..	..

Sources: Biuletyn Statystyczny, No. 12, 1979 and *Monitor Polski*, No. 30, 1979.

[a] 10 months.

[b] 1979 prices.

Deliveries to both internal and export markets were significantly less than planned. Deliveries to the consumer market rose by 4.1 per cent against a plan figure of 7.7 per cent, whereas deliveries for export rose by 4.4 per cent against a planned 9.6 per cent. There was reported near-fulfilment of the plan of exports to hard currency countries. While no data are available on the level of deliveries for investment, it would appear that the latter declined by about 10 per cent—in conformity with the plan.

Available data on changes in output by branches include the effect of price movements and hence do not provide an accurate picture of the pattern of structural growth. However, they give some useful information from which it appears that all branches experienced a sharp deceleration in the growth rate, resulting more from a slackening of deliveries to the internal market than from deliveries for export. This was true particularly in the case of metallurgy, engineering and the wood and paper industries, for which the growth of sales in current domestic prices fell sharply (see table above) while the growth of exports (in foreign exchange currency) was actually faster than in 1978.

Output of electricity rose by 1.6 per cent, which was insufficient to cover requirements. Inadequate plant and equipment was said to be partly responsible for frequent power failures.[91] Output of hard coal rose 4.4 per cent and exceeded 200 million tons. However, there was little change in the output of brown coal and production of natural gas declined. Taken together, production of energy materials (in terms of calorific content) rose by an estimated 2.7 per cent, while consumption rose by an estimated 4.2 per cent. A slight decline in exports of hard coal and a steep increase in imports of natural gas made up the difference.

In the engineering industry, dynamic growth continued in machinery and equipment for mining, and in construction and road-building machinery, which registered tonnage increases of 21.6 per cent and 13.4 per cent respectively. Output of computer equipment rose 26.9 per cent and guidance and control machinery and equipment by 11.5 per cent. Output of passenger cars rose 7.5 per cent to a level of 350.1 thousand units. There was a decline in the output of most other consumer items although the structure of output was improved.

An inadequate supply of imported raw materials particularly affected light industry; sharp decreases in output were recorded in textiles and knitted goods. In the food industry, a bright spot was the 5 per cent increase in the output of meat and some recovery in the fish catch.

Inadequate improvement in production efficiency and mounting foreign trade imbalances are causing concern. Official statements could be interpreted as suggesting the possibility of a far-reaching reappraisal of management methods and there has been a drastic revaluation of medium-term growth prospects. According to recently formulated guidelines,[92] industrial production is expected to rise at the rate of 3.7-4.4 per cent in the 1981-1985 period. The branch pattern of growth is to be more balanced and other steps have been undertaken with the purpose of achieving improvements in the internal balance, increasing the competitiveness of exports and reducing the use of raw materials per unit of output.

A comprehensive programme for the development of the energy economy and the rationalization of energy use is being prepared. It deals with long-term aspects, focusing on conservation of liquid fuels. The programme is being elaborated with the participation of specialists in various fields and it should, among other things, permit the creation of a more rational system of energy management in all facets of energy production and utilization.[93]

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[91] It was stated that only 18,000 MW out of a total of 25,000 MW electric power generating capacity is used during peak load periods. Around 28 per cent of installed capacity remains unused because of repairs and unforeseen breakdowns.

[92] Guidelines of the Party Central Committee to the eighth Party Congress. "On the further development of socialist Poland and of the well-being of the Polish People", Warsaw, October 1979.

[93] In the course of the debate on the programme, it was pointed out that, to a large extent, excessive use of energy in Poland was due to obsolete technological processes. According to opinions expressed by some experts, modernization of the country's foundries could result in a 30 per cent saving in the amount of energy used: in zinc production, a change in the method of refining could save 70 per cent of the energy utilized. Large energy savings could also be made in cement and in the production of basic chemicals. *Zycie Warszawy*, 13 March 1979.

In *Romania*, gross industrial production expanded by 8 per cent, representing only a slight deceleration from the 9.0 per cent rise of the preceding year. This however, masks a rather significant decline in the growth rate of most branches, offset by a recovery in the growth of food processing made possible by the better harvest. Net output rose by 9.1 per cent and industrial labour productivity (measured by gross output) by 6.4 per cent—the latter somewhat faster than in 1978. In sharp contrast to the preceding year, average nominal wages rose by only 2 per cent, thus leaving some room for manoeuvre in absorbing the impact of rising raw material costs.

Romania: the growth of labour productivity and wages in State and co-operative industry

(*Annual percentage change*)

	1976	*1977*	*1978*	*1979*
Labour productivity	7.3	8.1	6.2	6.4
Average wage net	5.7	7.1	11.2	*c.* 2

Sources: As for table 3.1.

Apart from satisfactory performance of the food-processing industry, where growth accelerated from 0.8 per cent to 7.7 per cent, relatively fast growth was also reported for the light industry (textiles, clothing, leather and footwear), average gross output of which rose by 8.1 per cent against 7.8 per cent in 1978. In the predominantly producer-goods branches, ferrous metallurgy, engineering and construction materials continued to expand production rapidly, with growth in the latter two remaining at two-digit levels. There was little growth in the energy sector or in chemicals and only modest expansion in non-ferrous metallurgy.

Output of electricity rose by 1 per cent, and although coal output expanded by 12 per cent, the aggregate production of energy materials, in terms of calorific content, was lower than in 1978: output of crude oil declined by 10.2 per cent and of natural gas by 6.2 per cent. Scarcity of energy materials was apparently one factor in the sharp curtailment of the growth in chemical industry output, which fell from 10.6 to 1.0 per cent. Another contributing factor was the accident at the Pitesti chemical works reported in last year's *Survey*.

The engineering industry expanded production by 11.7 per cent and a further big step was made towards shifting its composition in favour of high-technology products. Output of automation and electronic guidance systems rose by 32.3 per cent; of electronic calculating equipment 27.8 per cent; of metal-and plastic- cutting and forming machines by 27.7 per cent, and of optical and precision engineering items by 18.3 per cent. Production of sea-going ships, which is one of the priority branches in the present five-year plan, rose by 61.4 per cent; although this does not fully compensate for the decline that took place the preceding year, the level of production was 70 per cent above that of 1975.[94]

Good results in the consumer sector included a number of major items produced by the engineering industry—notably a 14 per cent increase in the output of radios and an 11.2 per cent rise in production of television sets.[95] In light industry, there was a 10.7 per cent growth in the output of knitted goods, whereas in the food industry there was a notable 17.1 per cent gain in the output of meat.

In 1979—in connexion with the 12th Party Congress—an "Energy Research and Development Programme" was adopted which not only represented a blueprint for Romania's energy policy for the period 1981-1990, but also provides an outlook for perspective development until the end of the century. The programme—drafted with the object of assuring eventual self-sufficiency with regard to energy supplies—envisages a wide spectrum of action which ranges from research, exploration and development, to improved methods of energy utilization. The country's energy potential is to be enhanced, particularly through maximum utilization of hydropower, coal, bituminous shales and nuclear energy. Among the specific targets, the change scheduled in the structure of electric power production is worthy of note; there will be a radical shift in favour of hydroelectricity, nuclear power and certain "non-conventional" energy sources.

Energy consumption per unit of national income is taken as the main indicator of economic efficiency. It is to be reduced to the lowest levels found in the industrial world. The index of energy consumption per unit value of industrial production is also to be lowered by at least 40 per cent in the next decade.

Concomitantly, Romania's State Council published a decree aiming at drastic cuts in energy consumption. The decree establishes norms for lighting and heating in enterprises, public institutions and private houses. It stipulates measures to restrict fuel consumption in transportation and sets higher prices for a number of energy products. A notable feature of the price adjustment measures was the introduction of petrol coupons supplied to owners of foreign registered cars, payable in convertible currency.

B. ENERGY

(i) General trends

According to preliminary and incomplete data, the aggregate production of energy materials (value calorific) rose in the eastern area by an estimated 1.9 per cent in 1979 compared with a 3.8 per cent rate registered in the preceding year. Data on energy consumption are not available for 1979, but it rose by 4.4 per cent in 1978, the first year since 1973 in which the growth of energy production in the area lagged behind requirements (table 3.6).

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[94] Romanian shipyards began large-scale production only in the 1970s. Rapid development is focused on the aim of self-sufficiency in maritime transport by 1990. It is in the nature of the product that the industry's output tends to fluctuate sharply from year to year.

[95] However, part of these increases only compensated declines that took place in some earlier years; in 1979, output of radios was 6.3 per cent and of television sets 12.1 per cent above their 1975 level.

TABLE 3.6

Production, net imports or exports and apparent gross consumption of primary energy in the Soviet Union and eastern Europe

(Annual percentage change)

	1971	*1972*	*1973*	*1974*	*1975*	*1976*	*1977*	*1978*	*1979*
					— A —				
Production									
Soviet Union	5.2	4.5	5.0	6.0	5.9	5.7	4.7	4.3	2.0
Eastern Europe	2.2	1.0	1.0	1.3	4.0	3.1	2.5	1.9	1.6
Soviet Union and Eastern Europe	4.5	3.7	4.3	4.9	5.5	5.2	4.3	3.8	1.9
Net imports or exports									
Soviet Union (net exports)	2.3	−3.1	5.9	13.1	10.7	18.2	10.8	2.3	
Eastern Europe (net imports)	24.0	11.6	17.9	0.7	17.2	12.3	13.2	10.9	
Soviet Union and eastern Europe (net exports)	6.7	−11.2	−2.1	23.6	6.3	22.7	9.2	−3.8	
Apparent consumption									
Soviet Union	5.6	5.6	4.8	5.1	5.2	3.8	3.7	4.7	
Eastern Europe	4.6	2.3	4.0	1.2	6.1	4.7	4.4	3.7	
Soviet Union and eastern Europe	5.3	4.7	4.6	4.0	5.4	4.1	3.9	4.4	
					— B —				
Soviet Union									
Production	5.1	5.3	4.9	5.4	4.9	5.0	4.7	3.8	
Consumption	5.3	6.2	4.6	4.4	3.5	6.0	1.8	4.7	

A: Refers to production or apparent gross consumption (production plus imports and minus exports) of major types of primary energy, crude oil and oil products, natural gas and gas products, coal and coal products and hydro power and nuclear power; for electricity, net exports or imports refer to total electric power

B: Includes, in addition to the above, production and gross consumption of peat, oil shale, and wood. However, it excludes production and consumption of atomic energy. Data for consumption are adjusted for changes in stocks and for a statistical discrepancy appearing under "other sources" in the official statistics.

Sources: National statistics, Government communications to the ECE Committees on coal, gas and electricity, secretariat estimates.

Note: The data differ somewhat from those appearing in earlier *Surveys* on account of the use of different coefficients to convert various sources of energy into coal equivalent. To the extent to which it was possible, the present estimates were derived using national coefficients of conversion. In the earlier estimates standard coefficients were used, identical to those utilized in the United Nations compilation of "World Energy Supplies". The greatest differences appear in coal, for which the estimated calorific content is generally lower according to national sources. See also appendix note.

This was the result of slower growth in the output of primary energy materials which was not offset by improvements in the efficiency of utilization. To the resulting excessive expansion of energy consumption were added difficulties in transportation. The consequent bottlenecks in energy supplies were among the factors inhibiting the rate of over-all economic expansion in all countries.

These trends were particularly apparent in the Soviet Union. In a number of east European countries production trends were more favourable, though consumption trends were less so. In fact, the statistical record provides little evidence in any of the eastern countries of a substantial decline in the rate of consumption growth, and in some it has even accelerated. Growth was around 4 per cent in the years 1977-1978 in both the Soviet Union and eastern Europe (table 3.7). This was somewhat lower than the 5.3 per cent recorded by the Soviet Union in 1971-1973, but is higher than the 3.6 per cent reported for the east European countries taken together, during the same years. There has thus been no change in the trends noted in an earlier *Survey*,[96] which reported high and even accelerating rates of energy consumption growth during 1974-1976 as compared with 1971-1973 for the region as a whole.

Changes in the rates of over-all economic expansion do not actually explain the trends of aggregate energy consumption. In most countries of the area the growth rate of net material product has decelerated in recent years. As can be seen from the table below, the coefficient relating the growth rate of energy consumption to the growth of net material product has risen sharply throughout eastern Europe and remained unchanged in the Soviet Union.

In all countries of the area, vigorous measures have been in force for a number of years aiming at restricting energy use. These measures were reported to have successfully reduced energy requirements on a micro-economic level. But the absence of any visible improvement in the utilization of energy materials on the over-all level is apparent. The elements influencing the level of energy requirements are complex and it would be too ambitious to analyse the question fully within the framework of this *Survey*. Nevertheless, some comment may help to bring the problem into sharper focus.

In the first place, post-1973 experience was different in the countries of the area than in other European and some industrialized overseas countries. Certainly such comparison is made difficult by the fact that the slackening in the growth of over-all economic activity has been less pronounced in eastern Europe and the Soviet Union than

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[96] *Economic Survey of Europe in 1977*, part I, pp. 120 *et seq.*

TABLE 3.7

Production, net imports or exports and apparent gross consumption of primary energy materials, 1971-1973, 1974-1976 and 1977-1978 in the Soviet Union and eastern Europe

(Average annual percentage change)

	Production			*Net imports*			*Apparent consumption*		
	1971-1973	*1974-1976*	*1977-1978*	*1971-1973*	*1974-1976*	*1977-1978*	*1971-1973*	*1974-1976*	*1977-1978*
Bulgaria									
Total	−3.6	−0.8	1.5	8.9	7.2	6.4	3.3	4.2	4.7
Coal	−2.9	−1.7	0.6	4.4	1.9	0.6	−0.8	−0.6	0.6
Petroleum	−17.1	−12.2	38.3	9.9	4.4	5.4	9.1	4.2	5.9
Gas	−22.4	−45.2	[a]	—	[a]	25.0*	−22.4	116.2	24.6*
Hydro and nuclear	6.0	45.7	5.4	[b]	2.1	4.9	41.9	25.1	5.2
Czechoslovakia									
Total	−0.6	1.6	1.6	13.7	8.2	8.2	2.4	3.4	3.7
Coal	−0.5	1.6	1.4	13.2[c]	4.5[c]	24.6[c]	−0.8	1.6	2.1
Petroleum	−5.5	−8.6	−5.5	13.0	6.0	4.5	12.6	5.8	4.4
Gas	−5.7	−0.9	14.8	21.0	21.8	16.6	10.4	16.2	16.2
Hydro and nuclear	−1.4	14.1	2.4	7.8	−2.8	−6.1	−0.8	4.3	−1.7
German Democratic Republic									
Total	−0.8	0.5	1.2	12.7	3.4	6.2	2.2	1.3	2.7
Coal	−1.9	−0.1	1.0	6.1	−10.4	2.1	−1.1	−3.3	−1.1
Petroleum	—	—	—	14.6	4.5	7.5	14.6	4.5	7.5
Gas	64.9	7.1	2.2	84.8	60.9	4.2	68.7	24.0	3.2
Hydro and nuclear	−1.9	58.5	19.5	47.1	−37.5	62.2	10.9	32.8	21.8
Hungary									
Total	0.0	0.9	3.1	8.8	9.1	7.1	3.1	4.3	4.9
Coal	−4.6	−3.1	−1.0	−5.9	1.8	−4.3	−4.9	−2.1	−1.8
Petroleum	0.9	2.5	1.3	16.2	8.1	11.4	11.7	6.8	9.4
Gas	12.6	7.5	9.7	−2.1	92.6	−3.9	11.8	13.6	7.3
Hydro and nuclear	[a]	[a]	[a]	11.2	−4.1	5.2	11.0	−4.5	4.7
Poland									
Total	3.9	4.3	3.3	0.1[c]	−5.7[c]	−6.2[c]	4.4	5.4	4.1
Coal	4.0	4.2	3.5	7.6[c]	2.3[c]	0.9[c]	2.9	4.8	4.3
Petroleum	−3.6	5.1	−10.7	16.6	6.7	5.1	15.8	6.7	4.6
Gas	1.8	7.5	—	14.8	17.1	1.5	4.1	9.7	0.4
Hydro and nuclear	−1.7	4.2	6.7	[d]	6.0[c]	[a]	−63.1	173.3	—
Romania									
Total	4.2	4.3	0.9	[b]	28.9	54.8	6.5	5.4	5.6
Coal	3.3	3.5	5.3	12.3	7.4	11.3	5.8	4.9	7.4
Petroleum	2.3	1.0	−3.4	−36.3	[b]	191.5	9.6	4.4	11.6
Gas	4.9	6.9	1.5	[c]	[c]	[c]	5.0	7.0	1.5
Hydro and nuclear	39.6	2.4	14.4	14.3[c]	−25.7[c]	[a]	117.1	18.5	25.7
Eastern Europe									
Total	1.7	2.8	2.2	17.7	9.8	12.1	3.6	4.0	4.1
Coal	0.9	2.1	2.4	13.0[c]	7.8[c]	−4.2[c]	0.4	1.8	2.7
Petroleum	1.6	1.0	−2.6	16.4	6.6	9.4	12.3	5.4	7.1
Gas	6.2	6.8	2.5	23.9	42.2	10.7	7.4	11.0	4.1
Hydro and nuclear	9.9	20.7	11.0	19.6	8.0	8.9	12.8	16.7	10.4
Soviet Union									
Total	4.9	5.9	4.5	1.7[c]	14.0[c]	6.4[c]	5.4	4.7	4.2
Coal	1.7	1.8	0.8	−8.2[c]	3.1[c]	−0.3[c]*	2.2	1.7	0.9
Petroleum	6.9	6.6	4.9	4.4[c]	10.9[c]	5.3[c]*	7.7	5.2	4.7
Gas	6.5	10.4	7.7	[a]	[d]	26.8[c]*	7.2	8.1	6.7
Hydro and nuclear	1.7	6.3	15.4	26.0[c]	5.3[c]	3.5[c]	0.4	6.3	16.3
Eastern Europe and the Soviet Union									
Total	4.1	5.2	4.0	−6.7[c]	17.2[c]	2.5[c]	4.9	4.5	4.1
Coal	1.4	1.9	1.5	−0.4[c]	5.3[c]	−1.6[c]*	1.4	1.7	1.6
Petroleum	6.7	6.4	4.6	−5.7[c]	15.9[c]	1.1[c]*	8.5	5.2	5.2
Gas	6.4	9.8	6.9	50.6	[d]	190.4[c]*	7.2	8.6	6.3
Hydro and nuclear	2.4	8.0	14.8	[a]	[a]	[a]	2.1	8.2	15.1

Sources: As for table 3.6.

Note: Data appearing under net imports or net exports of hydro and nuclear power refer to net trade in electricity.

[a] Amount was zero or negligible in one of the terminal years.

[b] During the period there was a change from an export to an import position.

[c] Net exports.

[d] During the period there was a change from an import to an export position.

TABLE 3.8

Net imports (+) or exports (−) in selected years 1970-1978 as percentage of apparent gross consumption of energy materials in the Soviet Union and eastern Europe

	1970	*1973*	*1976*	*1978*
Bulgaria				
Total	51.9	61.0	66.3	68.4
Coal	16.1	16.7	15.6	14.3
Petroleum	35.8	43.2	43.4	44.0
Gas	—	—	6.3	9.0*
Electricity	—	1.1	1.0	1.1
Czechoslovakia				
Total	19.4	26.5	30.3	33.0
Coal	−1.3	−1.8	−1.8	−0.7
Petroleum	18.3	24.5	26.4	26.7
Gas	1.9	3.2	5.2	6.6
Electricity	0.5	0.6	0.5	0.4
German Democratic Republic				
Total	20.4	27.4	29.1	31.1
Coal	7.5	8.3	5.8	5.7
Petroleum	12.8	18.1	19.9	21.8
Gas	0.1	0.9	3.4	3.5
Electricity	—	0.1	—	0.1
Hungary				
Total	33.8	39.6	45.3	47.2
Coal	11.9	9.0	8.4	7.0
Petroleum	19.7	28.1	31.3	35.3
Gas	0.8	0.7	4.2	3.5
Electricity	1.4	1.8	1.4	1.4
Poland				
Total	−13.9	−12.3	−8.8	−7.1
Coal	−24.6	−27.1	−24.8	−23.3
Petroleum	9.7	13.6	14.1	14.4
Gas	1.0	1.4	1.9	1.8
Electricity	—	−0.2	—	—
Romania				
Total	−2.9	3.8	6.9	14.9
Coal	5.4	6.3	6.4	7.1
Petroleum	−7.4	−1.6	1.1	8.1
Gas	−0.4	−0.4	−0.3	−0.3
Electricity	−0.5	−0.6	−0.2	—
Eastern Europe				
Total	10.7	15.7	17.2	21.4
Coal	−2.5	−3.3	−3.8	−3.1
Petroleum	12.4	17.6	18.3	20.8
Gas	0.7	1.2	2.5	3.4
Electricity	0.1	0.2	0.2	0.3
Soviet Union				
Total	−14.9	−13.4	−17.3	−18.1
Coal	−2.2	−1.5	−1.4	−1.3
Petroleum	−12.7	−12.4	−14.6	−14.9*
Gas	—	0.4	−1.2	−1.8*
Electricity	—	−0.1	−0.1	−0.1
Eastern Europe and the Soviet Union				
Total	−7.4	−5.2	−7.4	−7.2
Coal	−2.3	−2.0	−2.0	−1.8
Petroleum	−5.3	−3.8	−5.4	−5.0
Gas	0.2	0.6	—	—
Electricity	—	—	—	—

Sources and notes: As for table 3.6.

in the West. It is notable nonetheless that in the great majority of western countries, the decline in the rate of growth of energy consumption has been much steeper than the decline in the rate of growth of over-all economic activity; and a number of countries were able to expand the level of production while reducing the level of energy consumption in absolute terms (table 3.10). In other words, either past trends towards an increase in the energy content of production have reversed or, in some cases, trends towards a decline in "energy intensity" have accelerated. In the east European countries and the Soviet Union, the general tendency has been for the movement towards a reduction in the energy intensity of production to slow down (see text table).

The eastern countries of the region have, moreover, been among the world's highest energy consumers per unit of national product. There is in general a close correspondence between the energy intensity of production and relative per capita GDP levels (see table 3.9). Large upward deviations in energy intensity (compare columns 1 and 2) are few and those that do exist relate as a rule to countries which either dispose of cheap hydroelectric energy—Finland, Norway and Canada—or which use non-commercial fuel to a large extent, as in the case of Turkey. But the relationship between energy intensity of production and relative GDP levels breaks down when the east European countries and the Soviet Union are considered. Thus, in 1973, energy consumption in Bulgaria (with a per capita GDP of some 39 per cent of the US

Ratio of growth rate of total primary energy consumption to growth rates of net material product

(*Coefficients*)

	1971-1973	*1974-1976*	*1977-1978*
Bulgaria	0.43	0.55	0.78
Czechoslovakia	0.49	0.64	0.79
German Democratic Republic	0.41	0.27	0.60
Hungary	0.49	0.86	0.78
Poland	0.44	0.63	1.03
Romania	0.57	0.49	0.70
Soviet Union	0.89	0.92	0.89

Sources: As for table 3.6 and *CMEA Yearbooks* of various years.

TABLE 3.9

Relative energy intensity and growth rates of GDP and growth rates of apparent gross consumption of energy materials in the Soviet Union and eastern Europe

			Average annual rate of growth			
			GDP		*Energy consumption*	
Country	*Level of GDP per capita in 1973, US = 100*	*Energy intensity of GDP in 1973, US = 100*	*1971-1973*	*1974-1977*	*1971-1973*	*1974-1977*
			— A —			
Austria	59.8	62.9	5.6	3.1	4.8	1.2
Belgium	73.1	79.0	5.5	2.4	4.0	−1.2
Denmark	72.9	64.9	4.4	1.8	−0.5	0.2
Finland	69.4	84.3	5.3	1.5	5.2	1.1
France	64.6	65.8	5.6	2.8	6.9	−0.7
Germany, Fed. Rep. of	72.7	71.2	3.9	1.7	4.0	−0.4
Greece	39.7	41.3	7.8	2.9	12.7	4.0
Ireland	53.3	56.8	4.8	2.9	3.8	—
Italy	51.7	56.4	3.9	2.0	4.2	1.1
Netherlands	73.9	74.9	4.5	2.3	7.8	0.7
Norway	70.8	84.8	4.6	4.8	4.0	0.1
Portugal	34.4	31.1	8.6	2.1	7.0	4.3
Spain	45.1	43.4	7.2	2.6	9.2	4.6
Sweden	82.8	84.3	1.6	0.8	2.2	1.5
Switzerland	72.7	60.3	3.4	−1.4	4.2	0.9
Turkey	15.2	51.3	6.7	7.5	8.3	6.9
United Kingdom	70.9	68.1	4.2	0.3	1.8	−1.4
Canada	92.6	109.4	6.8	3.3	6.2	2.3
United States	100.0	100.0	4.7	2.0	3.6	0.8
Yugoslavia	30.3	50.6	5.7	6.0	6.7	6.9
Australia	77.5	64.8	4.6	2.6	4.7	5.0
New Zealand	76.0	55.5	4.7	0.7	5.5	4.5
Japan	64.5	58.3	8.1	3.2	5.9	0.9
			— B —			
Bulgaria	38.8	97.2	7.6	7.3	4.1	5.1
Czechoslovakia	55.8	90.0	4.9	5.2	2.3	3.6
German Democratic Republic	58.4	93.2	5.4	4.9	2.3	2.1
Hungary	42.5	64.9	6.3	6.0	3.4	3.7
Poland	42.3	81.1	9.9	7.7	4.2	5.5
Romania	33.1	90.0	11.5	10.3	7.0	5.5
Soviet Union	45.3	92.1	6.1	5.2	5.2	4.5

Sources: Column 1, ECE, "Study on Comparative GDP Levels", *Economic Bulletin for Europe* vol. 31, No. 2.

Column 2, index of per capita consumption of energy materials in terms of calorific content with the figure for the United States taken as a base, divided by the index shown in column 1. The figures for per capita consumption of energy materials represent OECD and Secretariat estimates. The OECD estimates were derived from "Energy Balances of OECD Countries" 1975-1977, OECD, Paris 1979. The secretariat estimates cover eastern Europe, the Soviet Union and Yugoslavia. They differ somewhat from those underlying tables 3.6, 3.7 and 3.8 for reasons explained in the appendix note on page 180 below.

Columns 3-7, OECD, *Main Economic Indicators*, September 1979, p. 152, *CMEA Yearbooks* of various years and *Yugoslav Yearbook*.

Note: Figures in the column on the average annual growth of GDP appearing in panel (B) refer to the growth of NMP. Those for Yugoslavia refer to GMP.

level) per unit of GDP was almost the same as in the United States. Even for Hungary, where energy consumption per unit of GDP is the lowest in the area, the relative position of the index is very substantially higher than its ranking on the per capita GDP index.

The high energy intensity of the GDP in the east European countries and the Soviet Union has been partly the result of the excessive energy intensity of industrial production. In fact, it may be termed surprising that in the Soviet Union and in Romania the share of industry in total consumption of energy materials has been near to 70 per cent and that in Czechoslovakia it stands above 50 per cent (table 3.10). In none of the 22 western countries does the share exceed the 50 per cent mark. By contrast, the share of transportation in total energy consumption has been uniformly lower in the area than in the western countries.

The preponderance of industry and the relative lagging of transportation are equally apparent in the absolute figures on per capita consumption of energy in the various sectors shown in the same table. It is not unexpected, of course, to find that the association between per capita GDP and per capita energy consumption in individual sectors is not as strong as the corresponding association with total per capita energy consumption. Even so, the relatively high level of per capita energy consumption in industry in the countries of the region is notable. For instance, the Soviet Union ranks first and Czechoslovakia ranks third in the per capita consumption of energy in industry—both assuming a position higher than the United

TABLE 3.10

Final consumption of energy materials in selected countries of the world by broad sectors of the economy, in 1975

	Final consumption per capital [a]				*Percentage distribution (total fuel consumption = 100)*			
Country	*Total*	*Industry*	*Transport*	*Agriculture, residential and other*	*Industry*	*Transport*	*Agriculture, residential and other*	*Non-energy uses*
				— A —				
Austria	3 324	1 279	657	1 208	38.5	19.8	36.3	5.4
Belgium	4 842	2 112	737	1 872	43.6	15.2	38.7	2.5
Denmark	4 033	790	957	2 159	19.6	24.4	53.5	2.4
Finland	4 901	2 039	821	1 926	41.6	16.8	38.9	2.7
France	3 559	1 335	753	1 235	37.5	21.2	36.2	5.1
Germany, Fed. Rep. of	4 250	1 668	790	1 645	39.2	17.9	38.7	4.1
Greece	1 335	538	336	417	40.3	25.2	31.2	3.2
Ireland	2 420	658	658	1 041	27.2	27.2	43.0	2.8
Italy	2 516	1 140	491	831	45.3	19.5	33.0	2.1
Netherlands	5 055	1 908	778	2 161	37.7	15.4	42.7	4.1
Norway	4 894	2 285	1 015	1 365	46.7	20.8	27.9	4.7
Portugal	912	347	341	160	38.0	37.4	17.6	6.8
Spain	1 739	851	488	330	48.4	28.1	18.9	4.6
Sweden	6 128	2 653	951	2 329	43.3	15.5	38.0	3.2
Switzerland	3 479	821	877	1 675	23.6	25.2	48.1	3.1
Turkey	800	151	191	440	19.0	23.9	55.1	2.0
United Kingdom	3 566	1 369	750	1 338	38.4	21.0	37.5	3.1
Canada	7 914	2 335	2 272	2 877	29.5	28.7	36.4	5.4
United States	8 112	2 365	2 756	2 727	29.2	34.0	33.6	3.2
Australia	4 163	1 798	1 407	775	47.2	26.3	23.1	3.4
New Zealand	3 007	990	994	950	33.2	23.4	41.6	1.6
Japan	2 950	1 562	531	757	53.0	18.0	25.7	3.4
				— B —				
Czechoslovakia	4 597	2 460	309	1 505	53.5	6.7	32.7	7.0
German Democratic Republic	3 977	1 832	219	1 778	46.0	5.5	44.7	3.7
Hungary	2 464	875	213	1 216	35.5	8.6	49.3	6.5
Poland	3 271	1 522	305	1 381	46.5	9.3	42.2	1.9
Romania [b]	3 476	2 399	186	891	69.0	5.4	25.6	c
Soviet Union [d]	4 130	2 982	281	867	72.2	6.8	21.0	..

Sources: As for table 3.9; for Romania: *Revista Economica*, 24 November 1978; for the Soviet Union: *Vestnik Statistiki*, No. 1, 1978

Note: Final consumption differs from apparent gross consumption (which underlies the figures shown in table 3.9) by the exclusion of losses in conversion in the production of electricity and steam; of own consumption by the energy sector; losses in transport; losses in conversion into other energy materials; and of the statistical discrepancy between aggregate sources and uses. The estimates of total final consumption, as well as of consumption by sector, include values for electricity obtained by "physical" fuel equivalent (as opposed to conventional input) coefficients—see appendix note on page 180 below.

[a] In kilograms of coal equivalent of conventional fuel.

[b] 1977.

[c] Included in the figure for industry.

[d] Total excluding non-energy uses.

States. Romania is equally among the highest industrial energy consumers, whereas in Poland consumption in industry exceeds—on a per capita basis—that of France and the United Kingdom. In contrast, per capita consumption of energy in transportation in every east European country is among the lowest exhibited.

These structural characteristics of energy consumption in the region must, of course, be borne in mind when considering trends in over-all consumption. While factual knowledge regarding the elasticity of energy consumption is admittedly sparse, it may be assumed that consumption in industry is, more than in other sectors, determined by technological factors and therefore is more resistant to restraining measures.[97] On the other hand, the low level of consumption in transportation points to the absences of "reserves" in this area. Even more, it reflects a lag in the development of road transport which will eventually have to be corrected, putting additional pressure on energy requirements.

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[97] Needless to say, this applies except when such measures affect the structure of production, in which case there may be a prompt effect on energy requirements.

TABLE 3.11

Soviet Union: production and net exports of energy materials

	1970	*1975*	*1976*	*1977*	*1978*	*1979*	*Plan 1980*	*Plan 1976-1980*
Coal (million tons)								
Production	624.1	701.3	711.5	722.1	723.6	719.0	745	805
Hard	432.7	484.7	494.4	499.8	501.5			
Lignite	144.7	160.2	160.0	163.5	162.9			
Net exports [a]	13.8	19.6	20.8*	22.1*	21.5*	..	..	..
Petroleum (million tons)								
Production	353.0	490.8	519.7	545.8	571.4	586.0	606	640
of which:								
Western Siberia	31.4	148.0	181.5	215.0	251.1	281.7 [b]	315	310
Net exports [c]	91.2	122.8	141.1	154.8*	156.5*	..	..	..
Natural gas (billion cu m)								
Production	197.9	289.3	321.0	346.0	372.2	407.0	435	435
of which:								
Western Siberia	9.3	35.9	44.2	62.8	85.0	115 [b]	155	150
Net exports	−0.3	6.9	14.0	18.9*	22.5*	..	..	..
Electricity (billion kWh)								
Total production	740.9	1 038.6	1 111.4	1 150.1	1 201.9	1 239.0	1 295	1 380
Thermal	613.0	893.4	948.1*	968.1	987.4	..	..	1 103
Hydro	124.4	125.0	135.7	147.0	169.7	..	..	197
Atomic	3.5	20.2	27.6*	35.0	44.8	54.2 [b]	..	80
Net exports	5.3	11.3	11.6	11.5	12.1	..	..	..

Sources: Statistical Yearbook, plan documents and secretariat estimates.

[a] Including net exports of coke.

[b] Planned.

[c] Crude oil and oil products.

Trends in the production and consumption of *individual energy materials* differ between eastern countries, reflecting resource availabilities, policies toward diversification of supplies, and to the restriction of oil consumption in particular. On the *production side*, there was little that could be described as a general tendency. The share of *coal* in the total output of energy materials declined everywhere, but this was the result of a lower than average rate of expansion rather than of a definite trend in growth. In a number of east European countries, the historical trend toward a decline in the rate of expansion was reversed in the period after 1973, and the figures for the group as a whole point to an acceleration in the growth rate. However, in the Soviet Union there has been some fluctuation in a previously similar trend in very recent years. In sum, and for the region as a whole, coal output in 1977-1978 rose by an annual average of 1.5 per cent,[98] about the same as in 1971-1973.

Oil production is non-existent or insignificant in Bulgaria, Czechoslovakia, the German Democratic Republic and Poland. Hungary, which derives some 15 per cent of its domestic energy supplies from this source, expanded production somewhat. However Romania, where domestic oil accounts for one-quarter of domestic supplies, experienced a deceleration in the growth rate, and very recently an actual decline in production. The share of oil in total energy production in the east European countries taken together has declined consistently (reflecting mainly the situation in Romania); it stood at 5.3 per cent in 1978 against 5.8 per cent in 1976 and 6.1 per cent in 1973.

An important factor shaping the energy situation in the region was a decelerating trend in Soviet oil production. Since Soviet oil accounted for some 37 per cent of the region's energy output, the fall off in the growth rate which took place there—especially in the most recent years—is a key feature of current development.

The production of *natural gas* is of little importance in Bulgaria and Czechoslovakia, and is only slightly more important in the German Democratic Republic and Poland. In Hungary, where natural gas accounts for over one-third of domestic energy supplies, the production growth rate in the period 1974-1978, although slower than in the immediate pre-1973 period, remained at a high level. The situation was different in Romania, where the role of natural gas is significantly more important; it accounts for some 60 per cent of domestic energy supplies. The growth rate of Romanian production was faster in 1974-1976 than in 1971-1973, but in more recent years it has declined sharply. Again—reflecting mainly the situation in Romania—the share of gas in the total production of energy materials in eastern Europe stood at 15.7 per cent in 1978, as against 15.6 per cent in 1976 and 13.9 per cent in 1973.

The trend in the expansion of output of natural gas has been favourable in the Soviet Union during the post-1973 period. This not only helped to mitigate the effect

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[98] In terms of calorific content, as in table 3.7.

TABLE 3.12

Eastern Europe: production and net imports or exports of coal [a]

(Million tons)

	1970	*1975*	*1976*	*1977*	*1978*	*1979*	*Plan 1976-1980*
Bulgaria							
Total	29.25	27.85	25.48	25.17	25.80	28.2	*c.* 37
Hard	0.40	0.33	0.30	0.29	0.27	0.3	..
Lignite	28.85	27.52	25.18	24.89	25.53	27.5	..
Net imports	5.46	6.74	6.52	6.61	6.70	..	..
Czechoslovakia							
Total	109.49	114.39	117.73	121.20	123.18	124.7	124.6
Hard	28.20	28.12	28.27	27.96	28.33	28.5	28.2
Lignite	81.30	86.27	89.47	93.24	94.88	96.2	96.4
Net exports	1.10	1.89	1.81	1.03	1.17	..	..
German Democratic Republic							
Total	261.63	247.25	247.35	254.05	253.35	..	250-254
Hard	1.05	0.54	0.45	0.35	0.09	..	..
Lignite	260.58	246.71	246.90	253.71	253.27	..	..
Net imports	11.38	9.19	8.88	9.39	9.31	..	..
Hungary							
Total	27.83	24.89	25.25	25.45	25.67	25.8	23.5-24.5
Hard	4.15	3.02	2.93	2.93	2.95	3.0	..
Lignite	23.68	21.87	22.32	22.53	22.72	22.8	..
Net imports	3.58	3.23	3.06	3.64	3.08	..	..
Poland							
Total	172.87	211.49	218.61	226.87	233.61	24.0*	290.0
Hard	140.10	171.63	179.30	186.11	192.62	201.0	210.0
Lignite	32.77	39.87	39.31	40.76	40.99	39*	80.0
Net exports	33.50	43.90	43.56	44.29	44.49	..	..
Romania							
Total	20.53	27.09	25.84	26.78	29.26	32.8	*c.* 54.0
Hard	6.40	7.32	7.11	7.15	7.42	..	8.0
Lignite	14.13	19.77	18.73	19.63	21.84	..	46.0
Net imports	3.24	4.96	5.44	5.54	6.73	..	..

Sources: ECE, *Annual Bulletins of Coal Statistics*; national plans and plan-fulfilment reports.

[a] Including coke.

of trends in the other two major fuels on the domestic supply situation but, by permitting a significant increase in exports, contributed to an alleviation of the energy supply situation in the other countries of the region.

On the *consumption* side, the *coal* component generally followed changes in production. Czechoslovakia was the most successful country in shifting its consumption pattern in favour of coal; after having declined at an annual rate of 0.8 per cent in 1971-1973, coal consumption rose at a rate of 1.6 per cent in 1974-1976 and at a rate of 2.1 per cent in 1977-1978. Bulgaria has also succeeded in halting the decline in coal consumption, but only very recently. In Hungary the decline in consumption of this fuel continued throughout the post-1973 period, but at a decelerating rate; in Poland, coal consumption rose at a sharply accelerated rate over 1974-1976 but some slowdown occurred thereafter. The opposite was true for Romania, where a declining growth rate has been reversed. Taken together, coal consumption in the east European countries rose at an annual rate of 2.7 per cent in 1977-1978, compared with 1.8 per cent in 1971-1973. In the Soviet Union, by contrast, the trend was downward—passing from a rate of 2.2 to 1.7 and 0.9 per cent in the same periods. On the whole, the rate of expansion of coal consumption in the region amounted on average to 1.7 per cent annually over the post-1973 period, not much different from that for the years 1971-1973.

Following the events of 1973, the growth of *oil* consumption fell off sharply everywhere in 1974-1976. However, in the most recent years expansion took place at a rather high rate, and in a number of countries there has even been a tendency for growth to accelerate. Among the east European countries only Czechoslovakia and Poland were able to sustain a decline in the rate of expansion in the 1977-1978 period. In the former country, growth declined from a rate of 12.6 per cent in 1971-1973 to 5.8 per cent in 1974-1976 and 4.4 per cent in 1977-1978, whereas in the latter the decline was from 15.8 per cent to 6.7 and 4.6 per cent. The trend in the growth of oil consumption was rather unfavourable in Romania, where the rate of increase—after having declined from an annual average of 9.6 per cent for the period 1971-1973 to a rate of 4.4 per cent on average in 1974-1976—rose again to an annual average of 11.6 per cent in the years 1977-1978. Oil consumption in the east European countries taken together rose by 7.1 per cent annually in 1977-1978, compared with 5.4 per cent in 1974-1976 and 12.3 per cent in 1971-1973.

TABLE 3.13

Eastern Europe: production and net imports (+) or exports (−) of electricity

(Billion kWh)

	1970	*1975*	*1976*	*1977*	*1978*	*1979*	*Plan 1976-1980*
Bulgaria							
Total Production	19.51	25.24	27.74	29.71	31.49	32.48	39.0
Thermal	17.36	20.23	19.80	20.30	22.67	..	..
Hydro	2.15	2.45	2.95	3.53	2.91	..	..
Atomic	—	2.55	4.99	5.88	5.91	..	..
Net imports	−0.11	3.62	3.46	3.34	3.81	..	..
Czechoslovakia							
Total production	45.16	59.28	62.75	66.50	69.10	68.0	78.0 [a]
Thermal	41.49	55.27	58.84	62.01	64.99	61.7	..
Hydro	3.67	3.82	3.46	4.38	4.10	4.2	..
Atomic	—	0.19	0.44	0.11	0.02	2.1	..
Net imports	3.40	4.21	3.91	2.55	3.44	..	..
German Democratic Republic							
Total production	67.65	84.51	89.15	92.00	95.96	96.8	106.5 [a]
Thermal	65.94	80.49	82.71	85.54	86.15	..	..
Hydro	1.25	1.27	1.17	1.25	1.28	..	..
Atomic	0.46	2.74	5.27	5.21	7.93	..	..
Net imports	0.40	0.68	0.31	0.51	0.81	..	..
Hungary							
Total production	14.54	20.47	22.05	23.40	25.54	24.8	27.50
Thermal	14.45	20.31	21.89	23.24	25.41	..	..
Hydro	0.9	0.16	0.16	0.15	0.14	..	..
Atomic	—	—	—	—	—	—	..
Net imports	3.40	4.12	4.12	4.44	4.55	..	..
Poland							
Total production	64.53	97.17	104.10	109.36	115.6	117.5	133.5 [a]
Thermal	62.65	94.79	102.00	106.97	113.17	..	..
Hydro	1.89	2.38	2.10	2.39	2.39	..	..
Atomic	—	—	—	—	—	—	..
Net imports	0.05	−0.51	−0.11	0.03	−0.39	..	..
Romania							
Total production	35.09	53.72	58.27	59.86	64.26	64.91	77.5 [a]
Thermal	32.32	45.01	50.16	50.52	53.64	..	..
Hydro	2.77	8.71	8.11	9.34	10.61	..	..
Atomic	—	—	—	—	—	—	..
Net imports	−2.39	−2.51	−1.46	−0.15	..	..	..

Sources: ECE, *Annual Bulletins of Electric Energy Statistics*; national plans and plan-fulfilment reports.

[a] Mid-point of range.

In the Soviet Union, trends in oil consumption followed a more regular pattern, with the rate of expansion continuously declining over time; in 1977-1978, oil consumption growth was 4.7 per cent annually compared with 5.2 per cent in 1974-1976 and 7.7 per cent in 1971-1973. It was in effect the sustained decline in the growth rate of consumption in the Soviet Union which made it possible for the rate of expansion for the region as a whole to remain unchanged at 5.2 per cent annually.

The consumption of *natural gas* accelerated everywhere in the years 1974-1976. However, in 1977-1978 there was a fall, reflecting lags in the availability of transport facilities in most east European countries and, in the Soviet Union, mainly a downswing in the rate of expansion of gas production. According to the incomplete information available at the time of the preparation of this *Survey*, imports and consumption in eastern Europe again rose sharply in 1979 when the Orenburg pipeline was completed, whereas in the Soviet Union the gain in production was apparently sufficient to raise exports while simultaneously raising the rate of growth of domestic consumption.

As reported in earlier *Surveys*, *nuclear power* came to play an important role in meeting energy requirements in at least two east European countries. In Bulgaria, output of electricity from atomic power stations rose from zero to 5.91 billion kWh in the period 1974-1978, accounting for 62 per cent of the increment in electricity output during those years. In the German Democratic Republic, production of nuclear electricity rose from 0.35 to 7.93 billion kWh, with 40 per cent of the incremental demand for electricity being met from this source (table 3.14). In the Soviet Union there has also been rapid development of the nuclear power industry; output rising from some 11 billion to 44.8 billion kWh between 1973 and 1978. (The latter figure represents some 16 million tons of fuel in standard coal equivalent.) Even more important than the amount of fossil energy replaced here was its contribution towards improving the geographical balance between energy supply and demand.

TABLE 3.14

Eastern Europe: production and imports of natural gas

(Billion cu m)

	1970	*1975*	*1976*	*1977*	*1978*	*1979*	*Plan 1976-1980*
Bulgaria							
Production	—	0.11	0.04	0.01	0.03	..	..
Imports	—	1.19	2.23	3.0	3.5	5.3	6.3
Czechoslovakia							
Production	1.20	0.93	0.98	1.00	1.15	..	..
Imports	1.34	3.82	4.63	5.17	5.75	6.3	7.0
German Democratic Republic							
Production	1.23	7.77	9.21	9.09	9.63	..	..
Imports	0.16	3.23	3.36	3.55	3.62	4.4	5.0
Hungary							
Production	3.47	5.18	6.08	6.61	7.34	6.5	..
Imports	0.20	0.81	1.21	1.20	1.24	2.8	3.8
Poland							
Production	4.98	5.78	6.50	6.95	7.62	7.6*	..
Imports	1.00	2.52	2.56	2.77	2.86	..	4.8
Romania							
Production	23.99	31.57	34.48	35.28	35.54	27.2	..
Imports	—	—	—	—	—	1.2*	1.5
Total							
Production	34.87	51.34	57.29	58.94	61.31	..	..
Imports	2.70	11.57	13.99	15.69	16.97	..	28.4

Sources: ECE, *Annual Bulletin of Gas Statistics*; national statistics and press reports.

Note: Exports of natural gas are negligible except for Romania which exports around 200 million cu m annually.

(ii) Co-operation within the region

The increasing dependence of the east European countries on energy imports is a long-standing phenomenon. Before the events of 1973, this was to a large extent a voluntary choice. Production of indigenous fuels had been curtailed in order to improve the structure of consumption in favour of cheaper and more efficient energy sources and, in particular, of oil. After 1973, the inability to expand quickly the production of oil substitutes—mainly coal and atomic energy—was a decisive factor. Oil, gas and electricity imports played a balancing role between production and requirements. The guaranteed supply of these energy sources from the Soviet Union was the main element in filling the gap. Remaining needs—almost all in the form of imports of crude oil—had to be met by purchases on world markets.

Reliance of the east European countries (except for Romania) on imports of energy from the Soviet Union provided advantages in the form of stability not only of supplies but also of prices. More important, payments could be assured within the framework of intra-CMEA multilateral trade agreements elaborated in connexion with the five-year plans. It is mainly this feature which has, to a large extent, dampened the effect of the world oil crisis on the economies of the east European countries. True, prices in trade between the region have risen constantly as a result of regular adjustments to world levels, and this has created great difficulties particularly for those countries which were not able to engineer shifts in their export structure—whether in terms of quality or quantity—to the required extent. However, for as long as the physical availability of energy supplies from the Soviet Union was not in question, the long-term consequences of the world oil crisis were bound to be smaller here than elsewhere.

Of course, the most important element in east European energy imports from the Soviet Union is oil. As can be seen from the figures below, these imports rose between 1970 and 1973 by 15.0 million tons and between 1973 and 1976 by 13.1 million tons. No data have been reported for recent years. However, estimates based on the 1976-1980 plan target suggest that their level in 1979 may have been around 76 million tons, which would imply an increment of 8 million tons between 1976 and 1979. The figures in the table on the next page (at least, the planned figures) indicate a slower decline in the share of the Soviet Union in east European oil imports in the later years of the 1970s than earlier in the decade.

Soviet exports of oil and oil products to the east European countries amounted in the period 1971-1975 to 271.1 million tons in all. The figure planned for the years 1976-1980 was around 370 million tons. There was, similarly, an increase in exports both of natural gas, amounting to 31.2 billion cu m in 1971-1976, which were planned to increase to 88 billion cu m in 1976-1980; and in electricity, for which the comparable figures were 46.5 billion kWh and 64 billion kWh, respectively. If coal exports and exports of oil and oil products to non-European CMEA countries are added, this gives a figure of 562 million tons of fuel (coal equivalent) for the period 1971-1975 and a plan figure of 780 million tons for 1976-1980. The signi-

Soviet exports of oil and oil products to eastern Europe
(*Millions of tons*)

	1970	*1973*	*1975*	*1976*	*Plan 1980*
Bulgaria	7.1	9.3	11.6	11.9	14.5
Czechoslovakia	10.5	14.3	16.0	17.2	20.0
German Democratic Republic	9.3	13.0	14.9	16.8	18.0
Hungary	4.8	6.3	7.6	8.4	9.1
Poland	8.6	12.3	13.3	14.1	17.4
Romania	—	—	—	—	—
Total	40.3	55.3	63.3	68.4	79.0
Soviet exports (per cent of imports)	85.8	80.4	81.8	79.9	79.0

ficance of these figures can be gauged from the fact that the former total represented 65.7 per cent of the total of the Soviet Union's net energy exports in the period mentioned.[99]

It is too early, at the time of the preparation of this report, to derive a clear picture of likely developments in this area in the coming years. According to available press reports, total exports of Soviet energy to the CMEA member countries are to rise by 20 per cent in the period 1981-1985. This implies a total of 936 million tons of fuel in standard coal equivalent. However, exports of oil and oil products are to rise from 416 million tons to 450 million tons—an increase of 8.2 per cent. The implication is that a steep increase in exports of natural gas and of electricity will make up the difference.

Whatever the exact magnitude of the figures, it is clear that the east European countries, while continuing to rely on the Soviet Union as their main supplier, will be forced—if present rates of expansion in demand continue—to turn increasingly to world markets to meet their oil needs. This will necessitate industrial adaptation to foreign markets in order to increase hard currency earning capacities.

It is clear from the preceding review that the solution to the region's energy problems will require a great effort in the exploration and development of deposits, the enlargement of processing and transportation capacities, and improvement in patterns of utilization. Large-scale international co-operation in scientific and technological fields will be required, as well as a pooling of national resources. A recent result of such co-operation within the region was the commissioning of the "Soyuz" (Orenburg) trunk gas pipeline at the end of 1978.[100] This is being used for the delivery of 2.8 billion cu m of natural gas annually to each of the following: Bulgaria, Czechoslovakia, the German Democratic Republic, Hungary and Poland, and of 1.5 billion cu m to Romania. The total volume of natural gas for delivery to the east European countries is projected at 15.5 billion cu m—about double the present pipeline delivery capacity to these countries.

The Vinnitsa-Albertirsa 750-kV power line was also commissioned in 1978. This links the United Power Grid of the Soviet Union with the electricity grids of the east European countries. The line runs for a length of 842 km of which around 570 km are in the Soviet Union and 270 km are in Hungary. From Hungary, a 400-kV line is to feed power to Czechoslovakia, Poland and the German Democratic Republic. The line will permit the annual delivery of an additional 6.4 billion kWh to these countries and to Bulgaria.

At the thirty-second CMEA session held in 1978, a new phase of co-operation was launched with the adoption of a long-term, purpose-oriented, co-operation programme for the period up to 1990; this covered various aspects of the energy problem. In accordance with the programme, member countries are to reconstruct their energy balance on the basis of the accelerated development of nuclear power and a wider utilization of solid fuels. It is planned to increase the total generating capacity of atomic power stations in the CMEA countries to some 150,000 MW,[101] of which 37,000 MW will be installed outside the Soviet Union.

Provision has been made for the further development of the electric energy system. Within the framework of implementation of a scheme for a United Power Grid, the CMEA countries are to construct two atomic power stations (Khmelnitzkaya and Konstantinovka) on Soviet territory (both in the Ukraine) with a generating capacity of over 4,000 MW each. Two 750-kV transmission lines will run from these stations—a 377-km line from Khmelnik to Rzeszov in Poland, and a 700-km line leading from Konstantinovka through Mechlin in Romania to Dobruja in Bulgaria. Similar lines are scheduled to be built farther north, linking Ignalinsk with Poland and the German Democratic Republic.

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[99] The same figure represents 54.7 per cent of gross energy exports.

In 1975, the share of the east European countries alone in the total of Soviet energy exports—amounting in that year to 238.9 million tons of fuel in coal equivalent—was 50.7 per cent. The figure was the sum of the following:

Bulgaria	9.8
Czechoslovakia	12.7
German Democratic Republic	12.5
Hungary	5.3
Poland	9.8
Romania	0.6

The Soviet Union, in turn, imported a total of 36.5 million tons of fuel in coal equivalent, of which around 9.5 million tons were purchased from the east European countries, predominantly Poland.

[100] The line has a diameter of 1.42 metres and a length of 2,677 kilometres.

[101] According to press reports, one hundred reactors of 440 MW and one hundred reactors of 1,000 MW are to be constructed during the decade.

TABLE 3.15

Eastern Europe: production, imports and exports of crude oil and oil products

(*Millions of tons*)

	1970	*1975*	*1976*	*1977*	*1978*	*1979*	*Plan 1976-1980*
Bulgaria							
Production	0.33	0.12	0.13	0.13	0.25	..	..
Imports	8.57	12.34[a]	12.71[a]	13.26[a]	14.14*	..	16.0
Exports	0.15	—	—	—	—	..	—
Net imports	8.42	12.34[a]	12.71[a]	13.26[a]	14.14*	..	..
Czechoslovakia							
Production	0.20	0.14	0.13	0.12	0.12	..	..
Imports	10.89	16.90	18.20	19.54	19.70	..	26.0
Exports	0.81	0.74	0.91	1.29	0.84	..	..
Net imports	10.08	16.16	17.29	18.25	18.86	..	..
German Democratic Republic							
Production	—	—	—	—	—	—	—
Imports	10.44	17.14	18.16	19.23	20.11	..	22.5
Exports	1.31	2.84	2.44	2.22	1.94	..	..
Net imports	9.13	14.30	15.72	17.01	18.17	..	..
Hungary							
Production	1.94	2.01	2.14	2.19	2.20	2.04	..
Imports	5.32	9.47	9.73	10.07	12.04	..	..
Exports	1.21	1.36	1.59	1.69	1.94	..	..
Net imports	4.11	8.11	8.14	8.38	10.10	..	..
Poland							
Production	0.42	0.55	0.46	0.36	0.36	..	..
Imports	9.43	16.44	18.31	19.73	19.10	19.5*	..
Exports	1.31	1.59	2.64	2.11	1.82	1.6*	..
Net imports	8.11	14.85	15.67	17.62	17.28	17.9*	..
Romania							
Production	13.34	14.59	14.70	14.65	13.72	12.9	..
Imports	2.29	5.09	8.48	8.84	12.94	16.0	9.5
Exports	5.37	6.18	7.84	6.74	7.56	..	..
Net imports	—3.08	—1.09	0.64	2.10	5.38	..	..
Total							
Production	16.23	17.41	17.56	17.45	16.65	..	..
Imports	46.93	77.38	85.59	90.67	98.03	..	c. 110
Exports	10.16	12.71	15.42	14.05	14.10	..	..
Net imports	36.77	64.67	70.17	76.62	83.93	..	..

Sources: National statistics, *CMEA Yearbook* and secretariat estimates.

[a] Incomplete data.

An agreement was concluded on multilateral co-operation for the production of equipment for atomic power plants. The "Atommash" concern in the Soviet Union, the Skoda Works in Czechoslovakia, a heavy engineering combine at Magdeburg in the German Democratic Republic, the "Chemimash" association in Hungary, the "Zemak" concern in Poland and some plants in Bulgaria are to participate in this programme. Apart from the design and manufacture of equipment for power generation, the agreement foresees co-operation in fuel economy systems and in the manufacture of installations for the utilization of industrial waste, steam and heat.

APPENDIX NOTE

The data on gross consumption shown in table 3.9 refer to the sum of production, net imports, marine bunkers and stock changes of commercial and most non-commercial fuel. This is with the exception of eastern Europe, the Soviet Union and Yugoslavia where they refer to the sum of production and net imports of commercial fuels. The data for eastern Europe and the Soviet Union differ from those underlying the figures in tables 3.6, 3.7 and 3.8 in that—in order to make them more closely comparable to the figures for other countries included here—the coefficients of conversion of hydro- and nuclear-electricity were altered. Following the OECD practice, "conventional fuel equivalent coefficients were used representing the primary energy equivalent in fossil fuels needed in each country to produce a kWh of electricity". The other tables mentioned were constructed on the basis of "physical input" equal to the physical heat value of the electricity (1,000 kWh = 0,123 tons of standard coal equivalent). This is a procedure which corresponds to the method usually used in the practice of constructing fuel balances in the Soviet Union and the east European countries. The estimates obtained by the two methods are as follows (in million tons of coal equivalent):

	1970	*1973*	*1977*	*1978*
Bulgaria				
Conventional fuel	34.10	38.48	46.92	49.21
Physical energy	33.57	36.97	43.63	45.95
Czechoslovakia				
Conventional fuel	80.83	86.68	99.89	102.84
Physical energy	79.01	84.90	98.07	100.89
German Democratic Republic				
Conventional fuel	102.23	109.35	118.67	121.25
Physical energy	101.76	108.71	117.13	119.03
Hungary				
Conventional fuel	30.80	34.07	39.37	42.20
Physical energy	29.81	32.72	38.07	40.87
Poland				
Conventional fuel	119.55	135.41	168.00	172.53
Physical energy	119.07	135.39	167.40	172.04
Romania				
Conventional fuel	60.18	73.66	91.35	97.58
Physical energy	60.08	72.63	88.98	94.86
Soviet Union				
Conventional fuel	1 058.1	1 232.9	1 471.6	1 545.3
Physical energy	1 030.9	1 205.4	1 433.8	1 500.5

4. INVESTMENT

(i) Investment trends in 1979 and plans for 1980

Developments in the investment sector of the east European countries and the Soviet Union in 1979 were marked by further efforts to ensure the conformity of over-all resource allocations to patterns in line with the current five-year plan objectives. This entailed slower or negative investment growth throughout the region, and these objectives were in most cases achieved or over-achieved. Little detailed information is available on the sectoral allocation of resources in 1979, but policies were again oriented towards the attainment of long-run growth objectives rather than short-term gains—a trend that has intensified during the current five-year period. Some modifications to improve the management and planning of investment were introduced during the year, notably in the Soviet Union. Emphasis continued to be placed in all countries on streamlining the investment process—notably by cutting gestation periods and by concentrating resources on priority projects.

The growth in the volume of investment, which accelerated in 1978 for the area as a whole, fell back sharply in 1979 (table 4.1). Only in Bulgaria, where investment rose moderately in contrast to a planned decline of 1.5 per cent, did the rate of investment growth exceed performance in the previous year. This development was in general foreseen. Only in the German Democratic Republic was an acceleration in the rate of industrial growth planned for 1979, though the 2.4 per cent rise actually recorded was substantially less than the 5.6 per cent target. Actual levels of investment were also lower than expected in most other countries. In Hungary, a negative growth target was exceeded, resulting in an 8 per cent decline in the over-all level of investment. This followed action to reduce enterprise liquidity by increasing taxation and obligatory contributions from profits to reserve funds: in all the years 1976-1978, enterprise investment plans had been over-fulfilled while State investments had fallen some way below target. In Czechoslovakia, Romania and the Soviet Union, growth rates of 1.6, 5.1 and 1.0 per cent respectively were achieved in 1979, but in all three cases the result was only just above half the rates targeted. In Poland, there was a sharp, roughly 8 per cent, decline in the absolute level of State investment. This appears to have been about in line with the planned reduction of 9.3 per cent in total investment outlays for 1979.

Over-all economic growth, though less buoyant than in the previous year, still outstripped investment expansion throughout the area in 1979. The *share of gross fixed investment in net material product* hence fell in all countries of the region. This represents an abrupt change of trend. With some year-to-year variations, the investment ratio has, in general, risen fairly steadily over the course of the current plan period to levels substantially higher than in 1971-1975 (see chart 4.1). It remained well above the levels implied by the current five-year plan for 1979 except in Czechoslovakia. In the other six countries, its level ranged from 1 point above the plan provisions in Bulgaria and the Soviet Union to 4.5-5.5 per cent in Poland and Hungary respectively. For 1976-1979 as a whole, the ratio was 2.0-3.5 points above the levels planned in the German Democratic Republic, Hungary and Poland, but less markedly so in Bulgaria and the Soviet Union. It was roughly on target in Czechoslovakia and Romania.

The downward trend in over-all economic growth rates in 1979 had substantial effects on the size of incremental (investment) *capital-output ratios* (ICORs) in most countries. The ICOR increased substantially in Czechoslovakia, Hungary, Romania and the Soviet Union, where slower or even negative investment growth was more than offset by abrupt decelerations in the rise in the net material product. The effect was biggest in Poland where the net material product fell. ICORs in Bulgaria and the German Democratic Republic declined as a result of more buoyant over-all economic expansion than in the previous year. In relation to levels planned for 1976-1979, ICORs reflected above all below-plan economic growth performance in several countries of the region. The substantial rises in the ICORs of most countries during 1979 in general reinforced similar trends in previous years, with the result that the average ICORs for 1976-1979 now stand typically some 50 per cent higher than planned—and nearly three times as high as planned in Poland. A notable exception is the Soviet Union where, despite the rise recorded in 1979, the average ICOR over the four years since 1975 is less than 1 percentage point above the level implied by the five-year plan.

Plans for 1980 indicate some quickening of investment growth only in Bulgaria, Czechoslovakia and the Soviet Union. A particularly sharp acceleration is planned for Bulgaria—a rise of nearly 12 per cent. This would bring the aggregate value of investment during the current five years up to the level foreseen, despite below-plan performance in most of the first four years of the plan period. The five-year investment plans are running behind schedule in Romania. Despite this, the target for 1980 provides for a slower rise (4.9 per cent) than in 1979, which would result in aggregate investment in 1976-1980 falling nearly 8 per cent below plan. In Czechoslovakia, the aggregate five-year investment targets will also be under-fulfilled—by nearly 4 per cent—despite a slight increase in the growth rate scheduled for 1980 (2.4 per cent). In contrast, the five-year-plan target for aggregate investment will be over-fulfilled (by over 2 per cent) in the Soviet Union, if the 3.3 per cent rise scheduled under the 1980 annual plan is achieved. The slowdown originally planned in the rates of growth of Soviet investment expenditure towards the end of the decade will apparently not materialize. In the German Democratic Republic, no investment growth is planned for 1980, and a cut of 4-5 per cent is targeted in Hungary. In Poland, investment will apparently stabilize at about the same level as in 1979. In all three countries, however, investment out-turns for the five-year period are likely to be over-fulfilled by substantial margins—by 4.7 to 8 per cent respectively.

TABLE 4.1

Gross fixed capital formation, capital formation ratios and incremental capital-output ratios

Country and period	*Gross fixed capital formation*		*Ratio of gross fixed capital formation to net material product*	*Gross incremental capital-output ratio*
	Billions of national currency units	*Average annual percentage change*		
Bulgaria (based on constant 1978 prices)				
1976	5.38	0.6	37.0	5.7
1977	6.15	14.3	39.7	6.3
1978	6.19	0.7	37.9	6.8
Plan 1979	6.10	−1.5	34.9	5.0
1979	6.26	1.1	36.0	5.5
Plan 1980	7.00	11.8	38.1	6.7
Plan 1976-1980	6.14 *	4.7 *	35.8 *	4.6 *
1976-1979	6.00	4.7	37.6	6.1
Plan 1981 [a]	7.48 [a]	6.9 [a]	38.6	7.0
Czechoslovakia (based on constant 1977 prices)				
1976	132.3	4.4	33.6	8.2
1977	139.8	5.7	34.0	8.1
1978	145.5	4.1	34.0	8.3
Plan 1979	149.0	2.4	33.4	7.8
1979	147.8	1.6	33.7	12.5
Plan 1980	151.3	2.4	33.2	9.0
1976-1979	141.4 *	3.9 *	33.8 *	9.1 *
Plan 1976-1980	148.8 *	5.4 *	34.0 *	6.9 *
German Democratic Republic [b] (based on constant 1975 prices)				
1976	46.3	8.4	31.4	8.7
1977	49.4	6.7	31.8	6.1
1978	50.8	2.8	31.6	8.8
Plan 1979	53.6	5.6	32.0	7.4
1979	52.0	2.4	31.1	7.8
Plan 1980	52.0	—	29.6	6.2
1976-1979	49.6	5.1	31.5	7.7
Plan 1976-1980	48.2 *	4.2 *	29.3 *	5.9 *
Hungary [c] (based on constant 1976 prices)				
1976	152.1	−0.3	36.0	12.0
1977	174.0	14.4	38.1	4.8
1978	183.6	5.5	38.7	9.9
Plan 1979	183.6	0.0	37.4	10.7
1979	183.0	−0.3	38.1	29.3
Plan 1980	174.8	−4.5	35.2	10.7
1976-1979	173.2	4.7	37.8	9.5
Plan 1976-1980	162.5 *	2.1 *	33.5 *	6.0 *
Poland (based on constant 1977 prices)				
1976	626.7	2.2	39.0	5.7
1977	653.6	4.3	38.8	7.8
1978	664.0	1.6	38.2	12.7
Plan 1979	602.0	−9.3	33.7	12.0
1979	553.0 [c]	−8.2 [c]	32.5	−16.3
Plan 1980	600.0	..	34.7	21.7
1976-1979	638.5 *	−0.1	37.9	12.2
Plan 1976-1980	616.8 *	0.2 *	33.3 *	4.7 *
Romania (based on constant 1977 prices)				
1976	151.6	8.5	38.3	3.6
1977	169.3	11.7	39.2	4.4
1978	196.3	16.0	42.3	5.7
Plan 1979	214.2	9.1	42.5	4.8
1979	206.3	5.1	41.9	6.8
Plan 1980	216.3	4.9	40.4	4.6
1976-1979	180.9	10.2	40.6	5.0
Plan 1976-1980	203.9 *[d]	12.8 *[d]	41.0 *	3.7 *

TABLE 4.1 (*continued*)

Gross fixed capital formation, capital formation ratios and incremental capital-output ratios

Country and period	*Gross fixed capital formation* *Billions of national currency units*	 *Average annual percentage change*	*Ratio of gross fixed capital formation to net material products*	*Gross incremental capital-output ratio*
Soviet Union (based on constant 1969 prices)				
1976	118.0	4.5	29.7	5.0
1977	122.3	3.6	29.4	6.5
1978	129.7	6.1	29.8	6.2
Plan 1979	132.0	1.8	29.0	6.7
1979	131.0	1.0	29.3	14.8
Plan 1980	135.3	3.3	29.1	7.3
1976-1979	125.3	3.8	29.5	6.9
Plan 1976-1980	124.3 [a]	2.5 [a]	28.8 [a]	6.1 [a]

Sources: National statistics; *CMEA Statistical Yearbook*, plans and plan-fulfilment reports.

Note: Where ranges are reported, the mid-point has been selected for the purpose of this table. Minor discrepancies are due to rounding.

[a] Based on 1980 plan figures.

[b] Figures include investments in other socialist countries totalling 1,095 million marks in 1976, 1,672 million marks in 1977 and 1,700 million marks in 1978.

[c] Figures refer to investments in the socialist sector only (90 per cent of total in 1978 for both Hungary and Poland).

[d] As published in December 1977.

It is clear that economic growth during the current five-year period has been more costly in terms of investment than anticipated in all countries of the region. In the case of the Soviet Union, economic growth in the first four years of the plan has slightly exceeded expectations, but the extra investment required to sustain it has been still greater. In the German Democratic Republic, Hungary, and Poland, substantial unforeseen investment has not succeeded in maintaining over-all growth targets —and in Bulgaria and Romania, investment cutbacks have been smaller than the margin of under-fulfilment of output plans. Contributory factors in recent years have been severe winters which have affected mainly industrial output; large, weather-induced fluctuations in agricultural production, tighter energy and raw materials availabilities and—especially in Bulgaria and Poland—the need to redress payments imbalances by cuts in domestic programmes, and especially investment programmes. In Romania, very substantial supplementary investments were required to repair 760 economic units and to reconstruct more than 230,000 destroyed buildings following the earthquake in March, 1977. While some of these constraints are essentially of a short-term nature, they have been reinforced by more deeply rooted factors: difficulties in raising productivity at a time when the labour supply is growing more slowly than before; the need to restructure output in accordance with the growing needs of the population for more abundant, higher quality goods and services; efforts to ensure the continued availability of raw materials—whether by investment to increase more costly domestic supplies in response to higher import prices, or to expand export capacities in order to pay for those items for which alternative domestic supplies are unavailable. The development of energy and raw materials-saving production processes, as well as the cost of compliance with measures to maintain environmental standards, have also added to investment costs.

The fairly consistent rise in ICORs throughout the region over the last few years has followed a trend which has in fact been apparent since 1970. This goes some way to confirm the significance of the recent rise given the susceptibility of this indicator to sharp year-to-year variations resulting from short-term movements in investment or in over-all economic growth. The movement of ICORs is, moreover, paralleled by trends in over-all capital-output ratios (CORs). This indicator reflects first, changes in capital productivity, though it is also influenced by write-off rates of fixed assets, and hence reflects the role of investment in replacing old equipment and modernizing the capital stock, rather than augmenting it.[102]

A comparison between the *rise in fixed assets* and gross investment since 1970 shows marked variation between countries and in trends over time. In the first case, inter-country differences appear to have narrowed since 1970, as the following text table shows. During 1970-1978 as a whole, the annual increment in fixed assets was highest in Romania (84 per cent), in Hungary (79 per cent), and in the Soviet Union (79 per cent). It was somewhat lower in Poland (73 per cent), and lowest of all in Bulgaria, the German Democratic Republic and Czechoslovakia (67, 60 and 70 per cent respectively). Since 1975, the ratio has tended to fall in the three countries where it was highest, and to rise in two of the countries where it was lowest (Czechoslovakia and Poland). Further reductions have taken place in Bulgaria's already low level, while that in the German Democratic Republic i has remained fairly constant (see text table below).

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[102] Over the long term, such policies can of course affect the movement of CORs themselves; the greater the proportion of modern equipment in the total stock, the lower, *ceteris paribus*, should the COR be.

Chart 4.1

Changes in levels of NMP, gross fixed capital formation and investment ratio

(Indices, 1968-1972 = 100)

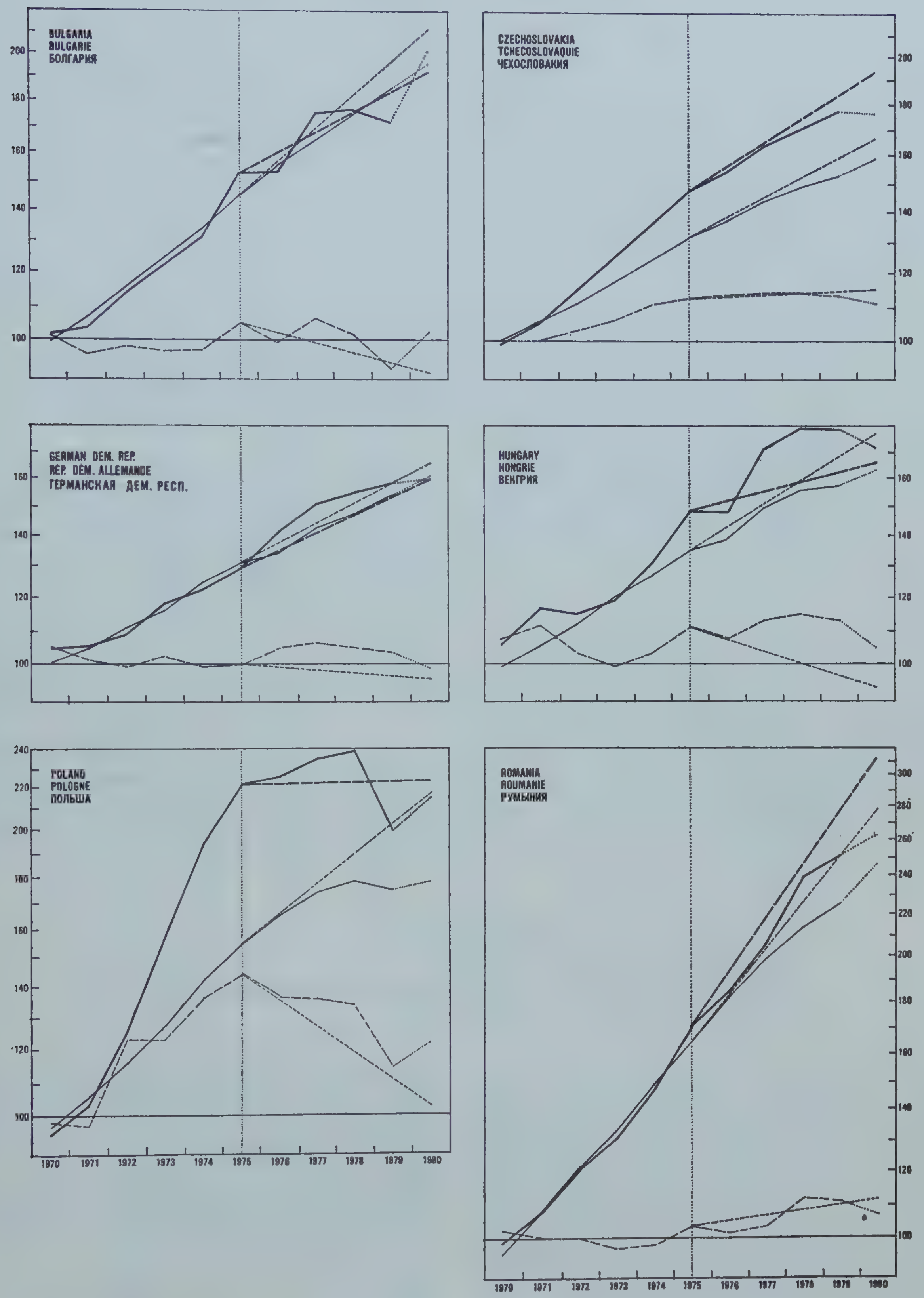
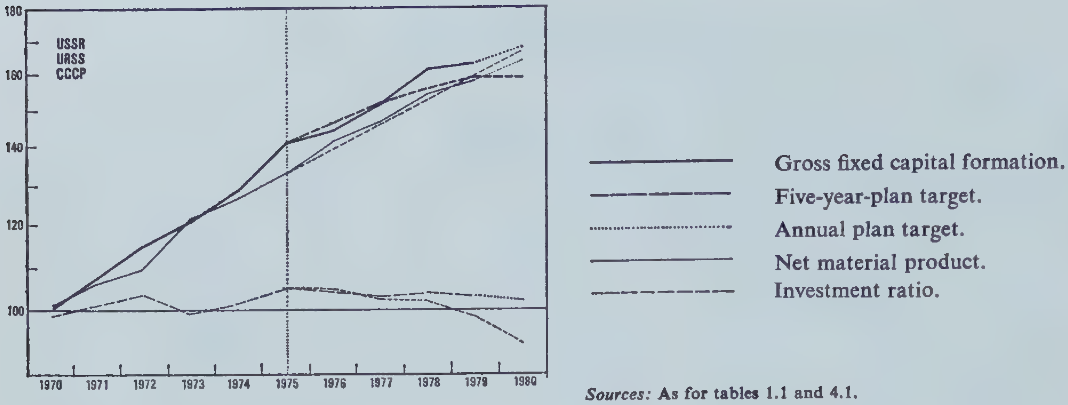


CHART 4.1 (*concluded*)



Sources: As for tables 1.1 and 4.1.

Share of annual increment in productive fixed assets in investment

(*Percentages*)

	1971	*1972*	*1973*	*1974*	*1975*	*1976*	*1977*	*1978*
Bulgaria	64	63	61	86	69	62	67	61
Czechoslovakia	71	63	71	67	73	77	69	70
German Democratic Republic	63	57	58	59	64	63	57	61
Hungary	79	74	82	78	92	74	76	..
Poland	56	73	69	80	72	77	82	78
Romania	86	71	82	91	102	90	79	71
Soviet Union	69	82	76	84	75	72	71	77

Sources: As for table 4.1.

Share of productive fixed assets up to five years old in total productive fixed assets [a]

(*Percentages*)

	1974	*1975*	*1976*	*1977*	*1978*
Bulgaria	50.5	50.3	50.3	50.6	50.7
Czechoslovakia	34.6	35.3	35.8	36.6	36.8
German Democratic Republic	42.3	41.5	41.2	41.7	41.4
Hungary	36.7	36.4	35.8	36.5	..
Poland	35.0	39.4	42.4	43.8	43.7
Romania	50.7	49.5	48.9	49.3	50.6
Soviet Union	44.3	44.2	44.0	43.6	42.9

Sources: As for table 4.1.

[a] Sum of investment in the year indicated and in the previous four years as a percentage of fixed assets in the year indicated.

In general, therefore, most countries of the region appear to have adopted an increasingly active but still rather modest policy of scrapping obsolescent equipment during the present plan period. However, the over-all slowdown in investment growth since 1975 has clearly affected the rate of progress in several countries. If investment in successive five-year periods is compared with total fixed assets in the final year of each period, it can be seen that since 1974 the share of capital equipment less than five years old has tended to fall except in Czechoslovakia, Poland and Romania. Though in all three of these countries, and especially in Poland, there has been substantial improvement compared with the last years of the previous plan period, the share of new assets in the total in the other countries has either stayed virtually constant (Bulgaria) or fallen. Given the rise in the share of machinery and equipment in total investment, it is likely that the position in this respect is more favourable for the machinery and equipment share of fixed assets in all countries, though comprehensive fixed assets figures are not available in the detail necessary to confirm this [103] (see text table below).

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[103] Czechoslovak figures on the age structure of the machinery stock roughly confirm this movement.

It is possible to derive *sectoral and gross industrial branch CORs*, as well as total CORs, for all countries of the region except for Romania, for which no figures for industrial fixed assets by branch are published. In the following discussion, sectoral and total (NMP) CORs relate to the material sphere only. Czechoslovakia, Hungary and Poland are the only countries for which fixed asset figures are published on the same price basis as those for NMP and industrial production. For the German Democratic Republic, it has been necessary to link output figures in 1967 prices with fixed assets in 1966 prices. For Bulgaria, industrial and NMP series are expressed in current prices, while fixed assets are expressed in historical cost prices. For Romania, total NMP, and investment by sector are in 1963 prices while fixed assets are also based on historical costs. For the Soviet Union, sectoral and total NMP levels are expressed in constant prices of 1973, and industrial production in 1975 prices. Since the change in the derived NMP price index was in any case small (a fall of about 4 per cent) over the period covered, it is unlikely that any great distortion has been introduced, though inter-sectoral or branch relativities may have altered.

The figures for total (NMP) and gross industrial output CORs offer several insights into policy. In Poland, the investment effort during 1970-1975 was very intense, and it brought about very high ICORs. But the rises in CORs —both total (NMP) and industrial, were very modest. In both the German Democratic Republic and Czechoslovakia, there were some rises in ICORs, though investment grew much less rapidly than in Poland; nevertheless, over-all CORs also rose only slowly or declined, especially for industry, in both cases. The picture was rather different in Bulgaria and the Soviet Union, where substantial to high rises in ICORs were accompanied by large and continuous rises in CORs.

It remains true that almost all countries—indeed, with the sole exception of Czechoslovakia—reported substantial and almost continuous rises in NMP CORs in the years since 1970. Although there was some fall in Poland between the beginning and the end of the last five-year period, this country and all others have shown increases in the rate of growth of both industrial and total NMP CORs since the beginning of the current plan period—sometimes at accelerated rates (see text table).

A question arises as to how far the increases in CORs can be attributed to changes in the sectoral and industrial branch distribution of investment resources. The figures quoted in table 4.2 summarize calculations to show, in the first instance, how far the changes in CORs since 1970 have affected NMP and industrial production growth by comparing them with an estimate of their 1975 and 1978 levels, had both the sectoral and branch fixed asset structure and sectoral and branch CORs remained constant at 1970 levels. In order to find the contribution of, respectively, changes in sectoral and branch CORs and changes in the sectoral and branch structure of fixed assets, in a given year (say 1978), this estimated figure has then been compared with NMP and industrial production levels calculated, first, on the basis of the fixed asset structure in 1970 but at current year CORs, and secondly, on the basis of 1970 CORs and current year fixed asset structures. The sum of the differences between each of the two calculated figures for 1978 NMP (and industrial production) and the first estimate for 1978 (i.e. calculated on the basis of unchanged (1970) CORs and fixed asset structures) should more or less equal the amount by which actual NMP (and industrial production) in 1978 differ from that first estimate[104] (table 4.2).

Capital-output ratios

(Co-efficients)

	Bulgaria	*Czechoslovakia*	*German Democratic Republic*	*Hungary*	*Poland*	*Romania*	*Soviet Union*
NMP							
1970	2.02	2.98	2.44	3.56	2.69	2.50	1.88
1975	2.28	2.99	2.55	3.64	2.58	2.56	2.16
1978	2.51	3.20	2.60	3.71[a]	2.92	2.71	2.33
Gross industrial production							
1970	0.65	1.28	1.15	0.83	0.91	..	0.71
1975	0.69	1.22	1.13	0.90	0.87	..	0.72
1978	0.75	1.25	1.13[b]	0.92[a]	0.97	..	0.81
Non-material[c] *sphere*							
1970	1.11	2.32	1.68	2.30	2.23	1.43	1.16
1975	1.09	2.24	1.43	2.13	1.68	1.07	1.21
1978	1.20	2.29	1.35	2.13[a]	1.63	..	1.24

Source: As for table 4.1.

[a] 1977.

[b] 1976.

[c] Ratio of fixed assets in the non-material sphere to NMP.

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[104] In fact, the combined difference does not necessarily equal the difference between actual NMP (or industrial production) and its level calculated on unchanged COR and fixed asset structures. There is also an "interaction" effect which it is not possible precisely to attribute either to COR changes or to changes in the fixed asset structure. However, this "interaction" effect is in general small compared with either the "COR change" or "fixed asset structure change" effects; only in the case of Soviet industrial output does it exceed either by any substantial margin. For a fuller discussion of this statistical phenomenon, see P. B. W. Rayment, "On the analysis of the export performance of developing countries", *Economic Record*, June 1971, and also annex 3.1 of *Structure and change in European Industry*, United Nations, New York, 1977.

TABLE 4.2

Effects of changes in capital-output ratios (CORs) and changes in the structure of fixed assets on the growth of NMP and industrial production

(Billions of national currencies)

	Bulgaria		Czechoslovakia		German Democratic Republic		Hungary		Poland		Romania		Soviet Union	
	1975	*1978*	*1975*	*1978*	*1975*	*1978*	*1975*	*1977*	*1975*	*1978*	*1975*	*1978*	*1975*	*1978*
A. *Total material sphere*														
NMP at 1970 fixed asset structure and CORs	16.1	20.3	371.8	447.3	150.6	177.7	401.0	452.9	1 440.0	1 882.0	371.3	507.1	428.2	535.1
Actual NMP	14.3	16.3	370.8	416.1	146.7	166.2	391.9	434.2	1 503.0	1 737.0	361.9	467.0	372.0	431.4
Difference	−1.8	−4.0	−1.0	−31.2	−3.9	−11.5	−9.1	−18.7	+63.0	−145.0	−9.4	−40.1	−56.2	−103.7
Effect of COR changes	−2.2	−4.3	−10.0	−45.4	−6.0	−15.2	−41.8	−65.7	+23.0	−196.0	−15.8	−56.3	−58.9	−110.4
Effect of change in fixed asset structure	+1.6	+2.4	+10.1	+20.5	+2.5	+4.2	+41.6	+65.9	+46.0	+122.0	+7.5	+24.9	+4.8	+11.4
"Interaction" effect	−1.2	−2.1	−1.1	−6.3	−0.4	−0.5	−8.9	−18.9	−6.0	−71.0	−1.1	−8.7	−2.1	−4.7
B. *Industrial production*						[a]								
Gross output at 1970 fixed asset structure and CORs	25.5	34.1	533.6	642.4	199.2	211.8	686.1	785.6	1 677.0	2 283.0	..	..	542.3	674.6
Actual gross output	24.1	29.5	562.0	657.2	202.8	215.5	632.7	705.1	1 745.0	2 134.0	..	..	511.2	593.4
Difference	−1.4	−4.6	+28.4	+14.8	+3.6	+3.7	−53.4	−80.5	+68.0	−149.0	..	..	−31.1	−81.2
Effect of COR changes	−1.8	−5.8	+20.6	+12.3	+1.2	+1.4	−56.4	−89.8	—	−266.0	..	..	−173.0	−249.9
Effect of change in fixed asset structure	+0.5	+1.5	+6.7	+1.8	+2.5	+2.6	−4.8	+1.9	+85.0	+140.0	..	..	−4.2	−9.2
"Interaction" effect	−0.1	−0.3	+1.1	+0.7	−0.1	−0.3	+7.8	+7.4	−17.0	−23.0	..	..	+146.1	+177.9

Sources: As for table 4.1.

Note: Apart from Bulgaria, NMP and industrial production are shown in constant prices. Where possible, fixed asset series based on constant prices have been used; the exceptions are Bulgaria and Romania, for which fixed asset series at historic cost have been used.

[a] 1976.

The results indicate that, for the total economies (NMP) of all countries, the "best alternative" (i.e. that which would have produced the highest level of NMP in 1975 and 1978) is that involving no change in CORs since 1970 combined with the "actual" structure of fixed assets in the two later years. The NMP levels so derived are between 6 and 28 per cent higher than those actually achieved in 1978. Similar results are obtained for industrial production. The converse case—and the worst alternative for all countries—assumes that the structure of fixed assets remained constant and were combined with "actual" sectoral CORs. This variant gave NMP outcomes between 2 and 11 per cent lower than those actually attained in 1978. In other words, the net effect of COR changes was negative and very large, while the net effect of changes in the structural allocation of investment was rather small but positive.

The main exception to the pattern of steadily rising CORs is Poland during 1970-1975—where buoyant growth of output (and an active capital write-off policy) brought about important improvements in sectoral and industrial branch CORs which have been reversed since 1975. The same is true for gross industrial production in Czechoslovakia and the German Democratic Republic, though in these two cases improvements in industrial CORs over 1970-1975 have continued during the current five-year period.[105] For the Soviet Union, the industry results are more difficult to analyse. The effects of changes in the branch structure of fixed assets are small and negative, in contrast to most countries, and the net positive contribution of the "interaction" effect is large in relation to it. The negative influence of branch COR changes is however clear.

A feature not susceptible to analysis from available information is the extent to which the rise of sectoral and branch CORs is influenced by internal changes within a sector or branch due to shifts into new, more capital intensive production lines, or the concentration of a bigger share of output in difficult or inaccessible regions of the country. In the latter case—particularly as it applies to development activity in the eastern and northern regions of the Soviet Union—industrial activities may, moreover, be associated with a greater share of infrastructural activities than elsewhere in the country—and a larger proportion than elsewhere may be borne by the producing enterprises. Another cost-enhancing factor in recent years is the higher incidence of environmental costs. Expenditure on environmental protection in the Soviet Union during the current plan period for instance, was set at 11 billion roubles, or some 2-2.5 per cent of total investment in the material sphere. This component of investment, which is highly concentrated in the chemical, power, metallurgical and some other industries will have had noticeable effects in those particular areas of economic activity. Moreover, the figures quoted suggest that they could be responsible for about 0.2 percentage points of the aggregate Soviet industrial COR in 1978.

The aggregate industrial sector COR (on a net basis) has risen since 1970 in all countries but Romania, but in all cases the rise was smaller than the average for the whole economy. The biggest rises took place in construction and agriculture in all countries: the growth of the construction sector COR was the fastest relative to other sectors in Bulgaria, Hungary, Poland and Romania. It was fastest in agriculture in Czechoslovakia, the German Democratic Republic and the Soviet Union. Transport and communications—although the highest in absolute terms compared with other sectors in all countries—either rose or fell by only modest proportions during 1970-1978.

Within industry, chemical and engineering CORs fell in most countries; where they rose, they did so at a lower rate than the aggregate industrial average (except in Poland since 1975). CORs in the chemical industry fell in three countries and grew at below average rates everywhere. The main impetus to the growth in over-all industrial CORs was distributed between the smaller industrial branches—notably wood and paper and construction materials (where CORs grew at above average rates in all six countries for which data are available); the light and food industries (all countries with the exception of light industry in the German Democratic Republic); and—to a more limited extent—the fuel industries in Czechoslovakia, Hungary and Poland.

In engineering and chemicals, the most quantitatively important branches of industry, therefore, some success in stabilizing the ratio of capital to output has been achieved. It is of interest that the two industrial branches concerned are those which have been responsible for the bulk of total industrial investment goods imports. The same is true of the transport sector. Against this, both the light and food industries, where CORs have risen rather faster, have also been priority investment goods importing branches in most countries. In these two cases, the heavily capital intensive nature of growth in recent years is associated with faster than average growth in investment allocations to increase their relatively low level of equipment. The same is true for agriculture and the construction sector, which, however, also show an association between low imports of investment goods relative to their share in domestic investment allocations, and fast growing CORs.

(ii) The structure of investment demand

In all countries of the area but the German Democratic Republic and Poland, the *share of construction in total investment outlays* has fallen since 1971-1975 while that of machinery and equipment has increased. In Poland, there has been an abrupt shift in over-all resource allocation from the material sphere to the construction-intensive service sectors—notably to housing, and the share of construction in the material sphere alone has fallen sharply. In the German Democratic Republic, the rising share of allocations to services has also given rise to a similar though less marked decline in construction investment in the material sphere.

There was some intensification of these trends in 1979 in Poland (tables 4.3 and 4.7): the main effects of the absolute decline in total investment have probably fallen upon construction activity within material investment. In the remaining countries of the area, there was probably little change in relative allocations for construction as against machinery and equipment investment in 1979, though data for Hungary, Romania and Poland are lacking.

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[105] However, this reflects in part the bigger rise of gross relative to net industrial production in both countries; CORs based on net industrial production rose after 1975 in both countries.

TABLE 4.3

Fixed capital formation by type of capital good: output of capital goods industries and foreign trade in machinery and equipment

Country and period	*Annual percentage change*							*Machinery and equipment percentage share in fixed capital formation*
	Gross fixed capital formation		*Output of capital goods industries*			*Foreign trade in machinery and equipment*		
	Construction work	*Machinery and equipment*	*Construction*	*Building materials industry*	*Engineering*	*Exports* [a]	*Imports* [a]	
Bulgaria	[a]	[a]						[a]
1976.........	3.3	−1.7	5.0	8.0	10.7	18.1	3.5	41.9
1977.........	15.7	10.1	11.2	7.8	15.0	24.9	7.1	40.3
1978.........	−2.2	3.4	6.9	10.4	11.0	14.9	14.3	41.4
1979.........	13.1	−13.1	5.0	10.1	4.6	..	..	..
Czechoslovakia								
1976.........	7.6	6.2	7.6	6.5	8.5	16.7	9.5	41.8
1977.........	4.6	9.8	4.6	3.9	7.3	14.4	20.5	39.3
1978.........	5.6	7.1	5.6	4.8	6.5	12.4	11.0	40.5
1979.........	1.4*	1.8*	3.7 [b]	3.0	6.6	..	..	40.5*
German Democratic Republic								
1976.........	8.1	6.6	6.8	5.3	6.3	13.6	19.3	49.2
1977.........	8.7	2.8	6.4	4.0	5.8	10.4	14.9	47.2
1978.........	1.5	3.5	4.8	4.0	5.3	13.6*	3.8*	48.2
1979.........	0.6	1.0	4.2	3.1	5.9	..	..	48.0
Plan 1976-1980	..	..	5.0	7.0-7.3	..	..	..	..
Hungary	[c]	[c]						[c]
1976.........	−1.2	0.8	4.6	3.4	5.5	3.2	1.2	45.5
1977.........	14.2	13.8	6.4	5.8	6.9	14.1	17.7	45.3
1978.........	2.6	6.8	3.7	6.8	6.0	3.7	17.9	45.8
Plan 1979	..	..	2.1 [c]	3.0-3.5	3.0-3.5	..	..	..
1979.........	..	..	1.0 [c]	3.0	..	..	..	..
Plan 1976-1980	..	..	5.5-6.0 [c]	5.2-5.5	6.3-6.7	..	..	..
Poland								
1976.........	−0.2	6.8	1.7	5.8	13.5	13.6	14.9	42.5
1977.........	3.3	4.4	3.9	4.1	10.2	17.0	3.0	42.5
1978.........	−0.1	5.6	3.8	2.1	5.8	11.8	3.8	42.2
1979.........	−6.2 [d]	−8.7 [d]	−4.8 [e]	..	5.1 [f]	..	..	46.0 [d]
Romania								
1976.........	5.1	11.2	5.6	14.3	12.2	16.6	4.6	43.9
1977.........	6.1	18.4	10.2	16.8	15.1	19.1	33.0	46.6
1978.........	13.2	19.9	10.7	16.3	14.1	12.0	17.7	48.2
1979.........	..	..	..	12.8	11.7	..	..	..
Soviet Union								
1976.........	1.2	9.7	1.6	3.5	10.2	20.9	15.3	34.5
1977.........	2.1	5.7	2.2	2.7	9.2	15.1	10.0	35.2
1978.........	1.6	8.4	1.8	2.6	9.4	11.9	12.7	35.9
1979.........	..	..	..	−1.0	8.0	..	..	..
Plan 1980	..	..	..	..	6.5	..	..	38.7 [g]
Plan 1976-1980	..	..	5.8	5.4	9.1	..	..	..

Sources: As for table 4.1.

Note: Construction output figures for Hungary and the Soviet Union differ slightly from those shown in previous editions of the *Survey*, and, for the Soviet Union, from those shown in table 1.1 of the present *Survey*, since they have been aligned with a broader definition retained for the other countries (i.e., including where possible private housing, planning, design, geological survey work, etc.). Differences between table 1.1 and previous *Surveys* for Romania are due to the use in this table of data in 1977 (instead of 1963) constant prices.

[a] In current prices.

[b] Reported figure; coverage may not be identical with previous years' data.

[c] Socialist sector only.

[d] State investment only; the comparable percentage share shown in the last column was 46.6 for 1978.

[e] "Basic construction" output only.

[f] Sales.

[g] State only.

TABLE 4.4

Ratio of growth of engineering output (A) and imports of machinery and equipment (B) to growth of investment expenditures on machinery and equipment

Period	*Bulgaria*		*Czechoslovakia*		*German Democratic Republic*		*Hungary*		*Poland*		*Romania*		*Soviet Union*	
	A	*B*	*A*	*B*	*A*	*B*	*A*	*B*	*A*	*B*	*A*	*B*	*A*	*B*
1971-1975 .	1.1	1.7	1.1	2.5	1.6	3.8	0.8	1.6	0.5	1.1	1.1	0.8	1.5	2.7
1976-1978 .	3.5	2.2	1.0	1.9	1.4	3.2	0.7	1.5	1.8	1.3	0.7	1.1	1.2	1.7
1976-1979 .	..	..	1.2	..	1.7	..	..	..	5.2	..	..	..	..	..
1976	−6.3 [a]	−2.1 [a]	1.4	1.5	1.0	2.9	6.9	1.5	2.0	2.2	1.1	0.4	1.1	1.6
1977	1.5	0.7	0.7	2.1	2.1	5.3	0.5	1.3	2.3	0.7	0.8	1.8	1.6	1.8
1978	3.2	4.2	0.9	1.5	1.5	1.1	0.8	2.6	1.0	0.7	0.7	0.9	1.1	1.5
1979	..	..	3.7	..	5.9	..	..	..	−0.6 [a]	..	..	..	..	..

Sources: As for table 4.1.

[a] The ratio is shown negative because investment expenditures on machinery and equipment decreased.

The plans for all countries continue to emphasize *investment in machinery and equipment*, in line with the policies to concentrate on the extension and re-equipment of existing enterprises and the cutting back of new project starts in order to reduce the share of uncompleted construction in total investment. Progress made in this respect in the earlier years of the present plan period has been maintained in Hungary, the Soviet Union and especially in Romania, though in the other countries the year-to-year trend in the relative shares of construction and machinery and equipment has not changed substantially.

The aggregate availability of machinery and equipment appears to have held up satisfactorily in relation to investment in machinery and equipment during 1976-1979 in most countries as compared with 1971-1975, reflecting in part slower investment growth relative to engineering output (table 4.4). However, there appears to be some tightness in supplies in Hungary, Romania and the Soviet Union—particularly in the most recent years for which data are available. Supplies of imported machinery and equipment have also increased in several countries in value terms, but are likely to have fallen in volume in all countries of the region in the most recent years. Domestic supplies in some countries may have been affected recently by the re-direction of a growing share of domestic machinery and equipment output to export markets; with the exception of Hungary and Romania, exports of machinery and equipment grew faster than imports in 1978, the latest year for which data are available.

The *construction industry* has experienced generally slower growth during the current plan period in all countries (table 4.5). This slowdown intensified in 1979, and plans for 1980, where available, suggest that this trend will continue. While in part this reflects attempts to cut down on the share of construction work in investment, labour supply shortages have intensified since 1975—particularly in 1979 in some countries—and may also have hampered growth. Of the four countries providing data for 1979, only in Romania and the Soviet Union has the construction labour force grown: it declined sharply in both Hungary and Poland, while the trend for the other countries in 1978 was in general similar.

Construction material industry supplies have in aggregate been easier in most countries of eastern Europe during the current plan period—the exception being Bulgaria where, however, there was a substantial improvement in 1979 (table 4.6). There was, moreover, a decline in Soviet building materials output in that year, which continued a generally falling trend in the growth of output since 1975. The materials supply situation was the subject of high level comment in the Soviet Union in 1979, and clearly represents a severe constraint on the growth of output. It is also an important constraint on productivity, which has grown slowly since 1975.

Productivity of labour in construction has developed more slowly in the latest years for which figures are available in all countries. This partly reflects the low level of equipment available to construction workers—typically only half that available to the economy as a whole—though its availability has substantially increased over this decade. Equipment per employee, moreover, has continued to grow rapidly in all countries of the area since 1975, and there is no sign of a systematic trend towards slower growth in the most recent years: in all countries fixed assets in the construction sector grew substantially faster than in the economy as a whole (see text table).

Indices of total fixed assets, 1970-1978

(1970 = 100)

	Bulgaria	*Czechoslovakia*	*German Democratic Republic*	*Hungary*	*Poland*	*Romania*	*Soviet Union*
Construction	257	196	197	277	283	332	218
Total, material sphere	193	159	156	169	192	239	189

Sources: As for table 4.1.

TABLE 4.5

Gross output and factor inputs in construction
(Annual average percentage change)

Country and period	Gross output	Fixed assets [a]	Employment [b]	Per employee: Gross output	Per employee: Fixed assets
Bulgaria					
1976	5.0	13.9	−3.5	8.8	18.3
1977	11.2	10.0 *	−0.1	11.3	10.1
1978	6.9	12.1	1.4	5.4	10.6
1979	5.0	6.2	1.2	3.9	5.0
Czechoslovakia					
1976	7.6	8.0	0.8	6.7	7.1
1977	4.6	7.7	0.8	3.8	6.8
1978	5.6	8.2	0.6	5.0	7.6
1979	3.7 [c]	..	..	3.1 [c]	..
Plan 1980	3.8 [c]	..	..	..	..
German Democratic Republic					
1976	6.8	7.7	1.7	5.0	5.9
1977	6.4	9.2	1.0	5.3	8.1
1978	4.8	7.6	0.9	3.9	6.6
1979	4.2	..	..	..	..
Plan 1980	5.3	..	..	..	..
Hungary			[d]		
1976	4.6	11.5	0.6	4.0	10.8
1977	6.4	12.5	—	6.4	12.5
1978	3.7	11.7	—	3.7	11.7
1979	2.1 [e]	..	−1.7 *[e]	3.9 [e]	..
Plan 1980	−(2.5-3.0) [e]	..	..	..	..
Poland					
1976	1.7	14.2	−1.4	3.[illegible]	15.8
1977	3.9	25.5	−0.2	4.1	25.8
1978	3.8	15.1	0.8	3.0	14.2
1979	−4.8 [c]	..	−1.7 [c]	−3.2 *	..
Romania					
1976	5.6	22.7	1.7	3.8	20.6
1977	10.2	14.6	3.7	6.3	10.5
1978	10.7	16.9	6.5	3.9	9.8
Soviet Union					
1976	1.6	11.4	1.6	—	9.6
1977	2.2	10.3	1.7	0.5	8.5
1978	1.8	11.6	1.8	—	9.6
1979	..	..	..	1.0 [c]	..
Plan 1980	..	..	..	3.5 [c]	..

Sources: As for table 4.1.

[a] Increases between end-year dates except for the German Democratic Republic, where increases in annual averages are shown.

[b] Annual averages.

[c] Reported figures: coverage may not be consistent with that of data for previous years.

[d] Building workers only.

[e] Socialist sector only.

See also note to table 4.3.

TABLE 4.6

Ratios of growth in building materials output to the growth of construction output
(Average annual percentage change)

	Bulgaria	Czechoslovakia	German Dem. Rep.	Hungary	Poland	Romania	Soviet Union
1971-1975	1.7	0.8	1.1	0.6	0.5	1.6	1.2
1976-1978	1.1	0.9	0.7 [a]	0.9	1.3	1.9	1.6
1976-1979	1.3	0.8	..	1.0	..	..	..
1976	1.6	0.9	0.8	0.9	3.4	2.6	2.2
1977	0.7	0.9	0.6	0.6	1.1	1.6	1.2
1978	1.5	0.9	0.8	1.5	0.6	1.5	1.4
1979	2.0	0.8	..	1.6	..	..	..

Source: Table 4.3.

[a] Excludes building materials produced by enterprises outside the industry (total building materials increased faster than construction output 1975-1978).

TABLE 4.7

Gross fixed capital formation by main sectors of the material and non-material spheres

(*Percentage distribution*)
Total gross fixed capital formation = 100

Country and period	Material sphere: Total	Agriculture and forestry	Industry	Construction	Transport and communications	Other	Non-material sphere: Total	Housing	Education	Health	Other
Bulgaria											
1976	74.1	14.7	40.4	3.7	11.2	4.2	25.9	10.8	3.7	1.8	9.6
1977	75.4	14.3	41.7	3.4	11.8	4.1	24.6	10.3	3.2	1.8	9.3
1978	75.2	12.8	41.7	3.2	14.4	3.1	24.8	10.7	3.0	1.8	9.2
1979	76.0	14.2	41.2	4.7	12.2	3.7	24.0	10.9	3.5	1.6	8.0
Czechoslovakia											
1976	72.2	11.7	37.4	3.9	14.0	5.2	27.8	14.6	5.7	2.2	5.3
1977	72.2	11.8	37.3	4.1	14.1	4.9	28.8	13.8	5.3	2.2	6.5
1978	72.0	12.3	37.1	4.9	13.2	4.5	28.0	13.3	5.2	2.3	7.2
German Democratic Republic											
1976	80.6	11.3	50.3	3.9	10.4	4.7	19.4	8.5	10.9		
1977	80.0	11.1	50.9	3.6	8.7	5.7	20.0	8.4	11.6		
1978	79.1	10.5	52.1	3.3	8.1	5.1	20.9	9.1	11.8		
Plan 1979											
1979	78.8	10.0	52.7	2.9	8.4	4.8	21.2	9.7	11.5		
Hungary											
1976	72.2	13.4	34.5	2.4	12.2	9.7	27.8	..	..	..	..
1977	73.2	12.9	37.6	2.7	11.1	8.8	26.9	..	..	..	..
1978	73.8	13.4	36.9	3.3	11.6	8.6	26.1	..	..	..	..
Poland											
1976	78.4	15.2	43.6	5.1	9.2	5.3	21.6	14.4	2.0	2.3	2.3
1977	77.4	16.5	41.5	5.4	8.4	5.7	22.5	15.7	2.4	2.1	2.3
1978	76.7	16.3	40.0	5.4	8.7	6.3	23.3	17.1	2.1	2.3	1.8
Plan 1979	74.4	18.1	39.4	3.3	6.8	6.6	25.6	20.7	2.1	1.5	1.3
Plan 1980	70.0	15.1	37.0	2.9	7.7	5.1	30.0	24.5	2.1	1.8	1.6
Romania											
1976	80.8	14.4	45.8	6.1	10.6	3.9	19.2	10.6	1.7	0.9	6.0
1977	82.1	14.5	47.7	6.3	10.4	3.2	17.9	9.7	1.4	0.9	5.9
1978	82.9	13.9	49.5	6.5	10.1	2.8	17.1	9.8	1.2	0.6	5.5
1979 [a]	..	12.2	54.4	3.3	11.2	..	..	9.7	2.5		..
Soviet Union											
1976	73.9	20.6	35.2	4.2	11.3	2.6	26.1	14.0	12.1		
1977	73.8	20.4	35.6	3.8	11.4	2.6	26.2	13.9	12.3		
1978	74.2	19.9	35.5	3.7	12.5	2.6	25.8	13.5	12.3		

Sources: As for table 4.1.

[a] In current prices; industry figure includes oil fields and the water economy, formerly included in construction.

(iii) The sectoral and branch allocation of investment

Up to 1978-1979, changes in the allocation of investment between the material and non-material spheres were not large in most countries (table 4.7). The share of the material sphere has, in general, tended to rise. However it has fallen slightly in Czechoslovakia; in the German Democratic Republic a declining trend in the share of allocations to the material sphere begun in the early years of the decade has continued while in Poland, sharp rises in the share of the material sphere in 1971-1975 were abruptly reversed in subsequent years. The material sphere's share in Poland, indeed, fell from 78.4 per cent in 1976 to a planned 74.4 per cent in 1979, and a further fall is foreseen in the 1980 plan. In Romania, the material sphere's share rose from nearly 81 per cent in 1976 to nearly 83 per cent in 1978—the highest in the area—and a further increase is apparently planned for 1980.

In both the German Democratic Republic and Poland the main beneficiary activity in the non-material sphere has been housing; some 25 per cent of total Polish investment will be directed to dwelling construction in 1980, and nearly 10 per cent in the German Democratic Republic. Housing accounts for 10-14 per cent of total investment in the other countries, but its share of allocations has not risen during the current plan period.

Within the material sphere, the share of industrial investment allocations has risen in most countries, sometimes substantially (Romania). The main exceptions are Czechoslovakia and Poland; plans for 1980 indicate a fall to 37 per cent in the latter country, compared with nearly 44 per cent in 1976. Transport expenditure, which rose sharply earlier in the decade in most countries, appears to have peaked in the mid-1970s except in Bulgaria and the Soviet Union. In the other five countries, this may reflect a slower pace in gas and oil pipeline construction

Investments in the combined fuel and energy branches in total industrial investments
(*Percentage share*)

	Bulgaria	*Czechoslovakia*	*German Dem. Rep.*	*Hungary*	*Poland*	*Romania*	*Soviet Union*
1970	21.3	18.3	19.4	25.4	27.5	28.9	28.8
1975	19.2	23.4	24.3	24.6	19.4	27.7	28.1
1978	21.2	25.5	23.1	24.9	22.5	21.6	29.5

Sources: As for table 4.1.

following the completion of some important links at the end of the last quinquennium. Of the remaining sectors, the share of agricultural investment stayed roughly constant in the Soviet Union since 1976, and declined in all other countries but Czechoslovakia. The Polish plan for 1979 saw a fairly sharp rise in this item, which is expected to moderate in 1980.

Within the industrial sector, the combined share of the fuel and energy branches in total industrial investments currently ranges between 21 and 30 per cent in the eastern countries; it is highest in the Soviet Union (nearly 30 per cent), and lowest in Bulgaria, Poland and Romania (21-22 per cent). Since 1970, the combined share of the two branches has increased markedly only in Czechoslovakia and the German Democratic Republic; it rose by less than 1 percentage point in the Soviet Union, and fell in Bulgaria, Hungary, Poland and Romania. Falls in the aggregate share of the two branches in total industrial investment over 1970-1978 were particularly large in Poland and Romania. Since 1975, the combined share rose, substantially in Bulgaria, Czechoslovakia and Poland, less strongly in Hungary and the Soviet Union. For the area as a whole, there is little sign of a major sustained resource transfer into fuels and energy in recent years. (See text table above.)

The share of allocations to the engineering industries has risen in all countries but the German Democratic Republic since 1975. Though the shift was small in most cases—engineering accounts already for 20-25 per cent of all industrial investments throughout the area—it was much larger than the average in Czechoslovakia (plus three percentage points) and in Romania the branch share increased from 19.6 to 25.9 per cent during 1975-1978.

Chemical industry investments have also increased in importance since 1975 in most countries. The exceptions were Czechoslovakia—where there was a sharp fall in 1978—and Hungary, where the branch's share fell by nearly one-quarter. By contrast, its share in the German Democratic Republic increased by nearly 4 points, and elsewhere by about 2 points. The branch's share still remained relatively low in Czechoslovakia, Poland and the Soviet Union (9-11 per cent over the period) compared with 13-20 per cent elsewhere.

Allocations to light industry and textiles lost ground in all countries of the area but the German Democratic Republic. The food industry has mostly held a constant, or—notably in the German Democratic Republic and Hungary—received an increasing, share of industrial investments. Its share fell back slightly, however, in Romania and the Soviet Union.

(iv) Investment performance and management

Current policies towards investment throughout the area show many common features. As described in section (i) and in previous editions of the *Survey*, the steady deceleration in the growth of the labour supply has increased the importance of rapid assimilation of new technology in order to maintain the growth of labour productivity and over-all economic expansion. Performance in all countries of the region has been less satisfactory in both respects compared with the earlier years of this decade, and is in most cases below the targets of the current five-year plans—an out-turn which has been paralleled by over-all trends in investment efficiency.

The share of *investments brought into operation* in total annual investments has declined compared with 1971-1975 in most countries, though there was some improvement in Bulgaria—and, to a lesser extent—in Czechoslovakia (table 4.8 and text table below). Moreover, the indicator has remained low in relation to the plan targets in the three countries for which figures are available.[106]

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[106] This is the more significant in view of the slackening of investment growth rates since 1975, which in the short term could have been expected to improve the indicator by reducing the denominator of the ratio.

Fixed assets brought into operation
(*Percentage of gross fixed investment*)

	Bulgaria	*Czechoslovakia*	*German Dem. Rep.*	*Hungary*	*Poland*	*Romania*	*Soviet Union*
1971-1975	85.0	94.6	n.a.	93.5	82.4	85.5	93.3
1976-1978	90.3	95.2	92.4[a]	85.3	80.9	85.2	91.4[a]
1978	90.8	90.5	93.8[b]	85.2	84.0	79.4	91.6[b]
Plan 1976-1980	100.0[a]	..	..	93.0	..	..	105.4

Sources: As for table 4.1. [a] 1976-1979. [b] 1979.

TABLE 4.8

Fixed capital brought into operation

Country and period	*Billions of national currency units*					*Percentage of gross fixed capital formation*				
	Total	*Agriculture* [a]	*Industry*	*Construction*	*Transport* [b]	*Total*	*Agriculture* [a]	*Industry*	*Construction*	*Transport* [b]
Bulgaria [c,d]										
1976	4.51	0.78	1.43	0.19	0.58	83.9	99.1	66.0	97.8	95.7
1977	5.90	0.92	2.09	0.21	0.78	96.1	105.1	81.7	97.3	107.6
1978	5.62	0.81	2.20	0.17	0.87	90.8	101.6	85.2	88.1	97.7
1979	5.36	0.81	2.17	0.20	0.71	85.5	91.4	84.1	67.7	92.3
Czechoslovakia										
1976	134.4	15.9	52.8	5.1	15.4	101.6	102.6	108.7	101.6	83.3
1977	130.6	16.7	47.0	5.4	17.9	93.4	101.7	90.2	95.0	90.1
1978	131.7	17.9	47.9	6.6	18.7	90.5	100.7	88.9	91.5	96.6
German Democratic Republic										
1976	41.5	5.0	20.0	1.3	4.7	91.8	98.4	87.9	75.7	99.5
1977	42.7	5.2	20.8	1.7	4.1	89.4	99.5	85.6	99.3	98.4
1978	46.5	5.1	24.5	1.5	4.0	94.7	99.5	95.8	93.8	99.3
1979	46.7	5.0	23.7	1.5	4.0	93.8	100.0	90.1	100.0	95.2
Hungary [e]										
1976	136.0	20.1	46.2	3.8	23.2	89.4	95.2	78.5	92.7	111.8
1977	147.5	22.1	54.3	4.9	18.8	81.3	93.0	71.7	89.3	84.1
1978	168.4	25.8	71.8	6.7	18.3	85.2	90.8	89.2	91.8	72.3
Poland [c,d]										
1976	447.3	87.4	202.9	27.7	50.7	72.2	99.3	74.2	86.6	88.2
1977	568.6	113.0	246.1	29.8	53.9	86.6	106.0	90.7	84.4	98.0
1978	567.9	122.0	227.3	36.6	54.3	84.0	112.4	84.5	101.1	91.4
Romania										
1976	136.5	21.3	60.8	9.1	14.7	90.1	97.4	87.7	98.7	92.0
1977	145.9	21.7	66.9	10.4	15.8	86.2	88.6	82.9	96.5	90.4
1978	155.8	23.6	68.4	12.2	16.7	79.4	86.6	70.4	96.0	83.7
Soviet Union										
1976	107.1	..	..	..	..	90.8	..	..	..	..
1977	110.5	..	..	..	..	90.4	..	..	..	..
1978	120.1	..	..	..	..	92.6	..	..	..	..
1979	120.0	..	..	..	..	91.6	..	..	..	..

Sources: As for table 4.1.

[a] Including forestry.

[b] Including communications.

[c] Based on current prices.

[d] The Bulgarian plan for 1980 specifies a figure of 97.9 for 1980; the Polish plan for 1980 specifies a figure of 91.7 per cent for the total economy and 90 per cent for the industrial sector.

[e] Socialist sector only, in current prices.

The significance of this ratio is considerable over the medium term, and may be closely linked to the higher than expected investment growth which took place in several countries. There is a close correlation between the movement of the ratio and the level of above- or below-plan investment in all cases but the German Democratic Republic (for which the indicator for 1971-1975 is not available) and Romania.[107] Excessively long gestation periods give rise not only to direct production losses, but also exert a braking effect on attempts to accelerate rates of technical progress throughout the economy. The ratio is, moreover, lowest in the industrial sector in all countries; the braking effect therefore falls most heavily precisely on the sector where rapid development of modern products and processes is most vital in view, *inter alia*, of their influence on the introduction of new industrial goods for investment and on the potential for producing competitive industrial goods for export.

One Soviet source has stated that the gestation period for large investment projects ranges between five and ten years in the Soviet Union (which roughly corresponds to the planning norm of eight to eight and a half years) and for medium-sized projects, three to five years.[108] The conclusion is drawn that the products of the new plant, or the production processes employed, may well be obsolete before production starts.[109] Such delays also reduce the flexibility of the economy to respond to new circumstances; the failure of energy consumption to fall per unit of output in the years following the post-1973 rise in fuel prices (see section 3.B) is a case in point. It may well be that despite the high priority given throughout the region to energy and fuel economy in industry, the redesigned equipment needed to bring it about has not yet been made available in significant quantities.

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[107] The cumulative effect of lagging performance shown by this indicator can be illustrated by a simple arithmetical example: if a 10 point rise in the indicator to 95 per cent were experienced over a five-year period, then the amount of investment brought into operation in the final year (assuming a 5 per cent annual growth in investment over the period) would be 12 per cent greater than if the indicator had remained unchanged.

[108] T. Khachaturov: "Ways of raising the effectiveness of capital investments", *Voprosy Ekonomiki*, No. 12, 1979, p. 127.

[109] *Loc. cit.*

The *construction industry* has been the subject of scrutiny in this connexion in most countries of the region. The causes of excessively long gestation periods have been discussed in previous editions of the *Survey*, and examples cited from all countries of the area. Further discussion is relevant this year in view of new initiatives taken in some countries. In the Soviet Union, a decree promulgated during 1979 announced action over a broad front to tackle several aspects of the problem.[110] This followed a period of experimentation in over-all construction management and planning in the Byelorussian SSR, which was subsequently extended to certain other areas of the Soviet Union, and in labour organization and remuneration systems elsewhere in the Soviet construction industry.

One of the central features of the decree is the introduction of a new indicator which provides for the evaluation of construction enterprises' work on the basis of net value added instead of gross output. This will, in the first instance, remove the financial inducement for construction firms to concentrate on the material-intensive initial stages of operations. Some construction firms have even preferred to begin work on new projects rather than complete the labour-intensive and less profitable (i.e. less material-intensive) work in preparing unfinished plant for commissioning. Added incentives in the form of bonuses for on-time and early commissioning of plants, for below-plan construction times and for high-quality work have also been introduced.[111] A further provision of the decree provides for a change in the financing of construction work. Advances by clients to cover work in progress will be abolished and working capital provided to the construction enterprises by banks. Interest rates on these loans will be increased by 50 per cent in the case of longer-than-planned construction times.

There is, of course, more than one reason for the undue prolongation of gestation periods. Estimates have been made that preparatory work can be equivalent to as much as 50 per cent of a project's construction time, and one commentator has recommended the incorporation of design organizations into construction enterprises.[112] The decree provisions will entail changes in the method of financing design work. As in the case of construction enterprises, progress payments by clients will be abolished and work henceforth financed on the basis of bank credit —again with punitive interest rates for delays which are not foreseen in the plans.[113] A similar approach will be adopted to solve problems connected with delays in providing the necessary production equipment for installation in factories; suppliers will also be remunerated for equipment delivered in the first instance, by credits accorded to them by banks. No payment by the client will be made to suppliers until the full range of equipment ordered has arrived and failure to respect delivery dates will once more result in the levy of punitive interest rates against the supplier organization. The same will apply to suppliers of construction materials.

Experience in the Byelorussian SSR where many of the innovations incorporated in the July 1979 decree have been tested during the current five-year period, suggests that some real progress may be possible in reducing gestation periods in the Soviet Union. Nevertheless, problem areas remain.

It has been pointed out that half of the construction projects not completed on time in the Soviet Union are delayed simply because the necessary site equipment is lacking.[114] In addition, the same source points out that year-by-year increases in plan targets have not been accompanied by any increase in the annual supply either of equipment or building materials since 1975. This situation may reflect both physical shortages of building materials, and their availability at the right place at the right time; over-all figures for the industry (table 4.6) do suggest some diminution in the over-all availability of building materials since 1975.

The adoption of the net output indicator in Czechoslovakia, and also in Romania in 1978, may also have some effects in reducing construction and over-all gestation periods.

(v) Investment financing

Recent years have witnessed attempts in most countries of the region to re-impose stricter control over investment expenditure. The tendency towards tighter central control has been given some impetus since 1975; attempts to raise the efficiency of investment were followed by the imposition of measures to curb the growth in foreign trade imbalances, which had occurred largely because of fast growing imports of investment goods. Essentially, a main objective has been to reconcile stricter central supervision of the way in which investment funds are spent, with the creation of a system of financial incentives and penalties to encourage optimum allocation of resources and their deployment with regard to specific projects at enterprise level. Overriding, and at times running counter to the second of these objectives, are the provisions of the plans themselves. These may often require the initiation or completion of projects which are costly and perhaps unprofitable in strict financial terms, which are nonetheless decided upon within the framework of strategic development objectives. In most countries, the price mechanism has not been harnessed to the achievement of these objectives. Instead, the achievement of plan targets has been encouraged on the one hand by administrative measures (direct allocation of resources for particular projects regardless of their profit-and-loss implications); in addition, the achievement of such objectives has been stimulated by incentives and penalties tied to their realization at enterprise level. The latter measures include: differential interest rates and repayment periods or credits according to their purpose; penalties—ranging from increased interest rates or repayment calls in cases where the objectives for which credits were granted are not attained; differing criteria for budgetary grants to enterprises for investment, again varying according to the purpose of the grant.

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[110] "On the improvement of planning and of strengthening the effect of the economic mechanism on raising the effectiveness of production and the quality of work", *Planovoye Khozyaistvo*, No. 9, 1979.

[111] These consist of: a bonus of 3 per cent of the value of work carried out for on-time commissioning; this can be raised on a sliding scale by 50 per cent if commissioning time is cut by 30 per cent or more and 10 per cent if it is cut by 10 per cent or more. Provided that the plan is commissioned on time, below-plan construction time is to be rewarded by up to 50 per cent of the planned profits over a period equivalent to the construction time saved up to a limit of 0.5 per cent of the value of work carried out.

[112] A. Stepun, *Planovoye Khozyaistvo*, No. 10, 1979, p. 26.

[113] Moreover, for inclusion in investment plans, full designs must be submitted by 1 July (instead of 1 September, as in the past) of the year preceding that in which the project is to be initiated.

[114] *Pravda*, 17 September 1979.

There is clearly some degree of tension between different methods of ensuring optimal investment performance. While—in the absence of self-regulating financial rewards and penalties—close centralized supervision is clearly necessary to ensure that certain of the planned objectives are attained, there is scope for enterprise initiative in the initial choice of project. The trend during the 1970s has been to intensify central control over both elements. In 1976, "decentralized" investment funds were included in central investment plans in the Soviet Union. Similar measures had been taken earlier in the decade in Bulgaria, and by some other countries. The criteria according to which enterprises' own funds were disbursed were tightened. Financial organs have tended to apply stricter supervision with regard to conformity with over-all investment plans, and to play a bigger role in ensuring that projections of costs, gestation periods and return from credit-financed projects are respected by use of differentiated interest rates, regulations covering repayment periods, and stipulations as to the share of enterprise finance required in projects financed partially on credit.

The reassertion of control has not been accompanied by any marked changes in the institutional arrangements for the planning and management of investment. But pressures have been exerted to influence investment patterns via existing mechanisms—both to check excessive growth in the volume of investment in some countries—partly by more restrictive investment targets in the five-year plans which have been associated with a less rapid growth of direct budgetary allocations to the economy for investment purposes; and also to ensure the application of stricter criteria for the choice of investment projects and their subsequent implementation by increasing the share of bank credit in investment finance. This entails, primarily, reductions in the role of enterprises' own funds.

Little systematic information on investment finance is published for most eastern countries. It is, however, clear from one recent source that in 1975 there were wide variations in the share of the different sources of finance as between eastern countries:

By 1978 the share of credit had increased in all of those countries of the area for which data are available. In Bulgaria, where the initial share of credit was over 50 per cent of the total, the rise was only small (to 55 per cent in 1978). It probably rose by substantially more in Poland —where its initial share was also over 50 per cent in 1975 —perhaps to about 60 per cent. In Czechoslovakia, credit accounted for 28 per cent of total investment in 1978. In the Soviet Union where the share of credit in 1975 was lowest in the area, its importance apparently doubled—to some 9 per cent in 1978.[115]

The growth of credit in the Soviet Union up to now has been accompanied by declines in the proportion of enterprises' own funds, whereas in Bulgaria the share of the latter rose while budgetary grants decreased. In Poland both of these two alternative sources of funds declined relative to credit. In Hungary the share of own funds in investment during 1979 was squeezed following changes in the dispositions of the "regulator" mechanism towards the end of 1978. Profit taxes were raised, and the rate of deduction from post-tax profits was raised expressly to reduce the availability of enterprises' own funds for investment purposes.

Enterprises' own funds constitute the bulk of investment finance in all countries but Bulgaria and Poland, current discussion tending to encourage a reduction in their role. It is considered that an excessive degree of freedom to concentrate such funds is accompanied by too little central control. Enterprises' own "surplus" funds can, in the Soviet Union, be transferred to other enterprises subordinated to the same industrial authority and used for investment by them if the enterprise in which they were accumulated does not wish to employ them. Enterprises receive no interest or other payment on funds deposited in banks but they do receive a return on funds so transferred for investment by other enterprises. The disadvantage from the central authorities' point of view is the lack of control on the choice of project and the efficiency with which it is implemented: given the lack of alternatives, the funding enterprise may be content with a low rate of return.

Sources of investment finance

(Percentage of State investment)

	Bulgaria		*Czechoslovakia*		*Hungary*		*Poland*		*Romania*		*Soviet Union*	
	1975	*1978*	*1975*	*1978*	*1975*	*1978*	*1975*	*1978*	*1975*	*1978*	*1975*	*1978*
Centralized funds	21	18	29	..	50	..	17	..	37	..	41	40
Enterprises' own funds ..	25	27	45	..	35	..	29	..	56	..	55	50
Credit	54	55	26	28	15	18	54	60*	7	..	4	9*

Sources : Sozialistische Finanzwirtschaft, No. 5, 1979, p. 21 and secretariat estimates.

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[115] Another source gives 12 per cent, see T. Khachaturov: *Voprosy Ekonomiki*, No. 7, 1979, p. 128. This source estimates that credit should account for about 25-30 per cent of investment in the coming years. However, the share of long-term credit in total State investment is projected at only 5.3 per cent in the Soviet budget for 1980—down even from the 6.2 per cent projection given in the budget for 1979.

The increasing involvement of banks, operating credit policies within the broad guidelines of the national plan, is in the first place intended to ensure the conformity of projects selected for financing with centrally-determined priorities. Banks also exercise a controlling function thereafter, to ensure that the profitability of the investment is maximized by speedy completion and efficient operation. There are signs that credit policy is becoming more selective. Criteria for approving projects can be modified to conform with current short-term policy objectives. In Czechoslovakia, for instance, interest rates may be lowered for projects which over-fulfil export plans or targets for the supply to domestic industry of high-priority investment goods, such criteria being re-assessed annually. Interest rate policy is also more selective. Basic interest rates for normal investment projects range from 0.5 per cent in the Soviet Union to 9 per cent in Hungary. Credits for modernization and rationalization investment expenditure pay a lower rate of interest. Rates can also be raised in cases where credits are not repaid in the agreed time; the punitive rate is as high as 12 per cent in Czechoslovakia, Hungary, Poland and Romania, but considerably lower in the Soviet Union (1.5-3.0 per cent). Increasing use is being made of interest rates as a spur to fulfilment and over-fulfilment of plans for investment profitability. In the Soviet Union for instance interest rates may be lowered or raised by 50 per cent for fulfilment or non-fulfilment of planned targets for output and profitability of the project.

However, there is little use of interest rates as yet to influence the over-all level of investment activity; interest rates have indeed been virtually stable over the decade in most countries—they have not been changed in the Soviet Union since 1965.

A further extension of the role of credit is being proposed, which would help to improve the performance of plan-loss or low profitability enterprises. Bank supervision of implementation could provide, it is argued, a source of outside expertise in such cases. At present, such enterprises do not have easy access to credit. Present regulations may also hamper credit growth. In the Soviet Union, bank credits are normally granted for projects for which the initial investment can be recouped within five years—which is not always possible for instance in cases where social objectives override purely profit and loss considerations.

5. CONSUMERS' INCOMES AND SUPPLIES

(i) Incomes and incomes policies

The growth of *real income per head of the population* accelerated in Bulgaria and Poland in 1979. Growth continued stable in the Soviet Union, but there was some deceleration in the other four countries. The rate of growth was fastest in the German Democratic Republic, Romania and the Soviet Union (3-3.5 per cent), followed by Bulgaria and Poland (2.0 per cent). The growth rate was lowest in Czechoslovakia (0.6 per cent), and in Hungary, where per capita real incomes remained at their 1978 level.

Full information is not available on *real wage growth*, but available data suggest that movements were similar to, if somewhat less buoyant than, trends in real incomes. The rates of growth improved marginally in the German Democratic Republic, and more vigorously in Poland compared with 1978, but fell away in the other countries. As in the case of real incomes, real wage growth rates were highest in the German Democratic Republic (3.3 per cent), Romania and the Soviet Union [116] (2.1 and 2.3 per cent respectively), followed by Poland (1.8 per cent) and Bulgaria (1.7 per cent). In Hungary a slight fall in the absolute level of real wages took place in 1979 compared with the previous year.

The rate of growth of *money incomes* continued high in Hungary and Poland (9.5-10.0 per cent)—the countries with fastest rising consumer prices (table 5.2). In the other three countries where consumer prices were stable or increased marginally, money incomes grew at rates ranging between 2.8 per cent for the German Democratic Republic and 3.6 per cent and 3.9 per cent for Czechoslovakia and the Soviet Union respectively. In Romania, total money income rose by 5.7 per cent in 1979 and wage and wage-like incomes of the population by 6.2 per cent; an increase of 9.6 per cent for the latter is planned for 1980.

Nominal wages and salaries in general followed the trends in money income of the population. The highest rates of increase were in Poland and Hungary (7.7 and 8.7 per cent respectively—see text table). In line with planned objectives, the rise of average nominal wages was less than in the previous year in most countries of the region. However, the rise in wages and incomes should be viewed in the context of improved wage and salary systems in pensions and working conditions introduced in some countries.

In Bulgaria, wage growth rates in 1979 were higher than in 1977 or 1978. Important changes in the national remuneration system were introduced on 1 November 1979 simultaneously with retail price rises. Wage rates were increased by about 30 per cent on average, and salaries by about 25 per cent.[117] A new uniform wage scale and an ordinance concerning supplementary labour remuneration were also introduced. The minimum wage was fixed at 100 leva a month instead of 80 leva. The minimum rate for young specialists was increased from 105 to 155 leva for those with higher education; from 92 to 135 leva for those with secondary and semi-higher technical and semi-higher teachers' institute education; and from 83 to 120 leva for those with secondary education.

The system of supplementing remuneration for work under unfavourable and certain other conditions was improved with a view to stimulating more appropriate distribution towards, and a reduction of labour turnover in, the industrial branches and activities with harder

Average monthly nominal wages

Country	*Average monthly wages and salaries in national currency units 1979*	*Annual percentage change*					
		1976	*1977*	*1978*	*Plan 1979*	*1979*	*Plan 1980*
Bulgaria	162 *[a]	1.4	2.0	4.0	..	3.2	..
Czechoslovakia	2 580	2.8	3.2	3.0	2.7	2.6	2.8
German Democratic Republic	1 011	3.5	2.9	3.2	..	3.5	..
Hungary	3 996	5.7	8.5	8.4	5.6	7.7	4.5
Poland	5 094 *	8.8	7.3	6.1	..	8.7	6.9
Romania	2 108	8.3	6.2	10.6	..	4.8	7.5
Soviet Union	163.5 [b]	3.8	2.5	3.0	1.9	2.2	2.1

Sources: As for table 5.1.

[a] About 205 leva after the wage and salary increase introduced on 1 November 1979.

[b] Earnings plus payments and benefits from social funds total 224 roubles per month.

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[116] Increase in the nominal wage.

[117] *Durzhaven Vestnik*, No. 90, 1979.

TABLE 5.1

Real income and real wages

(Annual percentage change)

Period	*Real income per head of population*	*Real wages per wage- or salary-earner*	*Real income per head of population*	*Real wages per wage- or salary-earner*
	Bulgaria		*Romania*	[a]
1976	4.6	0.8	8.7	5.8
1977	0.6	0.4	4.0	5.5
1978	1.3	0.4	8.0	8.0
Plan 1979	3.2	..	..	6.7
1979	2.0	1.7	3.1	2.1
Plan 1980	3.0	..	..	..
1976-1979	2.1	..	..	..
Plan 1976-1980	3.7	..	6.2-7.0	5.5
	Czechoslovakia		*Soviet Union*	[b]
1976	3.3	2.0	3.7	3.8
1977	2.3	2.0	3.5	2.5
1978	1.0	1.9	3.0	3.0
Plan 1979	..	..	3.3	1.8
1979	0.6 *	—*	3.0	2.3
Plan 1980	2.2	—*	2.9	2.1
1976-1979	1.4	1.5	3.3	2.9
Plan 1976-1980	..	2.5-2.8 [b]	3.9	3.2
	German Democratic Republic		*Byelorussian SSR*	[b]
1976	5.0	3.0	6.0	7.2
1977	5.9	3.2	3.0	2.2
1978	4.2	3.2 *	4.0	2.8
Plan 1979	..	..	3.7	3.0
1979	3.4	3.3 *	4.0	3.2
Plan 1980	..	..	3.8	5.1
1976-1979	4.6	3.2	4.1	3.8
Plan 1976-1980	3.9-4.2	..	4.0	4.1
	Hungary		*Ukrainian SSR*	[b]
1976	0.8	0.1	5.0	4.7
1977	4.5	3.7	4.0	2.2
1978	2.9	3.1	3.0	2.3
Plan 1979	2.0	1.0	3.5	2.0
1979	— *	—(1.0-1.5)	2.0	2.3
Plan 1980	—	— *	3.5	3.7
1976-1979	2.2	1.4 *	3.4	2.9
Plan 1976-1980	3.4-3.7	2.7-3.0	3.5	2.8
	Poland			
1976	7.1	3.9		
1977	6.1	2.3		
1978	−0.6	−2.7		
Plan 1979	1.1-1.4	1.5-2.0		
1979	2.0	1.8		
Plan 1980	1.0-1.3	1.0		
1976-1979	3.6	1.3		
Plan 1976-1980	..	3.0-3.4		

Sources: National statistics, plans and plan-fulfilment reports.

[a] Increase in wage funds in real terms.

[b] Average nominal wages.

TABLE 5.2

Money income

(*Annual percentage change*)

Period	*Total money income*	*Wage and wage-like income*	*Income from agriculture*	*Pensions and social benefits*		*Total money income*	*Wage and wage-like income*	*Income from agriculture*	*Pensions and social benefits*	
				Total	*Pensions*				*Total*	*Pensions*
			Bulgaria					*Hungary*		
1976	..	6.9	..	5.5	7.4	6.1	5.6	−0.2	13.8	19.1
1977	..	1.8	..	5.5	7.5	9.6	7.3	17.1	9.8	12.5
1978	..	4.5	..	4.0	7.1	8.1	9.0	0.0	8.4	10.2
Plan 1979	..	..	..	..	..	9.0	..	..	..	..
1979	..	6.0	..	8.8	8.7	9.5-10.0	7.7*	6.2*	18.0*	21.7*
Plan 1980	..	..	..	..	..	..	4.5 [a]	..	13.0	..
1976-1979	..	4.7	..	5.9	7.6	8.4	7.4	5.8	12.5	15.9
			Czechoslovakia					*Poland* [b]		
1976	4.9	4.0	−1.1	8.7	12.9	12.1	10.6	21.7	15.5	16.6
1977	4.5	4.7	0.5	3.5	3.3	12.3	9.0	14.2	17.2	22.8
1978	3.5	4.2	1.2	2.6	2.7	8.9	7.2	5.2	16.6	20.4
Plan 1979	4.3	..	..	..	..	7.6-7.9	6.5-6.8	8.6	18.0	21.0
1979	3.6	3.6	..	5.0	..	9.5	8.5	..	17.0	18.6
Plan 1980	5.3	2.8 [a]	..	7.1	..	8.0	6.7	7.1	16.0	19.0
1976-1979	4.1	..	..	4.9	..	10.7	..	..	16.6	19.6
			German Democratic Republic					*Soviet Union*		
1976	3.9	4.4	..	..	1.9	5.8	5.9	4.8	5.7	5.3
1977	5.2	4.7	..	..	13.0	4.5	4.6	4.0	4.1	5.4
1978	3.6	4.5	..	..	−0.3	5.1	5.4	2.2	5.4	6.6
Plan 1979	4.0	..	..	..	..	3.5	3.6	5.2	2.3	3.5
1979	2.8	3.5 [a]	..	..	..	3.8	4.1	4.0	2.3	3.5
Plan 1980	4.0	..	..	..	..	4.5	3.7	5.4	8.3	10.0
1976-1979	3.9	..	..	..	..	4.8	5.0	3.7	4.4	5.2
Plan 1976-1980	4.0	..	..	..	..	4.6	4.6	4.7	5.2	6.1

Sources: As for table 5.1. [a] Average monthly wage. [b] Non-socialized sector only.

working conditions. Differentiated rates of remuneration were fixed for underground work—supplements of up to 80 leva a month—and for other work under other onerous conditions, supplements of 10-40 leva a month. Supplementary remuneration was also introduced for length of service and uninterrupted service differentiated according to labour conditions and the priority accorded to the industrial branch in which the employee works. The highest rate is fixed for workers engaged in underground mining, construction, and geological survey work —6 per cent for one year of service rising to 36 per cent for more than 15 years. Those engaged in surface mining, construction metallurgy and power generation, and also shepherds and cowherds in farming, weavers and spinners in the textile industry etc., will receive 5 per cent for three years of service rising to 20 per cent for more than 20 years. Workers engaged in other branches and activities will receive 3 per cent for five years of service rising to 12 per cent for more than 20 years.

In *Czechoslovakia*, the growth of the average nominal wage in the national economy during 1976-1978 was basically as envisaged in the plan, but slower than in the previous five-year period. The rate of growth of nominal wages, but not of nominal incomes, slackened in 1979 but some acceleration is called for in the plan for 1980. Higher than average increases in the average wage were paid in 1979 in those branches which are currently the focus of development priority—fuel extraction (4.9 per cent), railway transport (4.1 per cent), heavy engineering (3.8 per cent), and the energy industry (3.7 per cent).[118] As the planned growth of national income has not been achieved, the share of wages increased. This gave rise to supply and demand imbalances.

In the *German Democratic Republic*, the rise in money incomes fell slightly below the annual plan in 1979, but growth during 1976-1979 remained in line with the five-year-plan targets. The share of households with a net income of more than 1,200 marks monthly increased from 30 per cent in 1970 to about 70 per cent in 1979.

In *Hungary*, the rate of growth of total money incomes has increased progressively since 1975; the same was true of wages up to 1978, though there was some slacking in 1979. Wage and income supplements were introduced to compensate for the July 1979 rise in retail prices. Persons in regular employment, with the exception of workers in agricultural producer co-operatives, received a monthly supplement of 180 forints. Workers, members and employees of agricultural producer co-operatives received 140 forints.

The difference in income between various social strata and branches of employment in Hungary has decreased during the decade. Figures for the period 1972-1977 indicate that the proportion of citizens with an income of less than 1,400 forints dropped from 29 to 12 per cent. At the same time, the wages of skilled workers were only 30 per cent higher than those of unskilled workers.

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[118] *Plánované Hospodářství*, No. 8, 1979.

A number of decrees affecting wages were brought into effect on 1 January 1980. The decree on wage regulation at enterprises is intended to promote a more direct connexion between enterprise performance and wage increases. The application of regulations on the total wage fund which has been extended to a wider field than previously, will increasingly encourage differentiation in wages according to work output and stimulate thriftier management of manpower. The incentive effect of the decree is based upon provisions to permit enterprises and co-operatives to increase their own resources spent on personal incomes and enterprise development provided that profits increase under more difficult operational conditions. Enterprises will have to pay tax only when wage increases exceed 9 per cent, rather than 6 per cent as in the past. The amount will be a uniform 150 per cent instead of the previously applied progressive taxation. Enterprises can utilize wages saved from cuts in the labour force for raising wage levels by a maximum 3 per cent without being taxed. A minimum 2 per cent wage increase will be guaranteed even in those enterprises which at the moment do not fulfil the requirements.

In Poland the minimum wage was increased from 850 zlotys in 1970 to 1,800 zlotys in 1979. Poland has recorded high rates of growth of nominal incomes and wages in all years since 1975. After decelerating slightly in 1978, growth picked up again in 1979, but slightly slower growth is scheduled for 1980 (8 per cent for incomes and 6.7 per cent for wages).

For Romania, no information is available on over-all nominal wage and income movements in 1979. The first stage of a pay increase was concluded on 1 July 1978. Basic wages and salaries increased by 17.3 per cent for workers and 15.7 per cent for others. The minimum basic wage rose from 1,114 lei in 1975 to 1,288 in 1978. The second stage, scheduled for 1979-1980, will raise the real average remuneration to 2,111 lei, an increase of 32.3 per cent as against 1975. The ratio between minimum and maximum remuneration in the economy is maintained at 1:5.5.

In order to offset price and public service tariff increases, the annual profit-sharing and bonus funds for the labour force will, starting on 1 August 1979, be increased on the basis of monthly evaluations of enterprise activity. These sums will be paid at the end of the year, together with annual profits and bonuses.

In the Soviet Union, the average monthly earnings of factory and office workers rose by 12.4 per cent between 1976 and 1979 and the remuneration of collective farmers by 21.7 per cent, which is in accord with the targets of the five-year plan.

During 1979, new wage rates were applied to 18 million people in middle pay categories employed in the non-material sphere. Wage and salary rates were raised in 1976-1978 for people working in regions with relatively difficult climatic conditions. Wage and salary rates in the non-material sphere had not been revised since 1964-1965. The introduction of new wage rates and salaries for such workers, which began in December 1976, was completed in 1979. As a result, 31 million people will receive increased earnings during the five-year-plan period.[119] The minimum wage was increased to 60 roubles per month in 1968 and to 70 roubles in 1978. The 1976-1979 pay increment amounted to an average of 25 per cent of the wage or salaries concerned, and in some categories to more. The final pay increment, introduced on 1 November 1979 and applied to 12 million people, required additional financial resources of about 2 billion roubles.

Additional privileges have been given to some categories of workers in ferrous and non-ferrous metallurgy, in the coal and shale industry, the textile industry, and agriculture. Wages have been increased for front-line workers in the building industry. It has been decided to increase wages on the railways in the eastern areas of the country, and to introduce seniority bonuses at enterprises of the Ministry of Railways.

Increases in wage and salary rates affecting skilled personnel have brought about an increase in the earnings differential coefficient between unskilled and skilled workers (1: 3.5 in 1976 as against 1: 3.1 in 1968).

Available data on *agricultural incomes* in 1979 are only fragmentary. Changes in incomes reflected fluctuations in agricultural production (table 5.2). Thus, in Hungary, the growth rates of agricultural incomes varied from 17 per cent in 1977 to zero in 1978 and 6.2 per cent in 1979. Supplementary income earned from household farming by members of peasant co-operatives decreased over the decade.

In Romania, the real income per active member of co-operative farms deriving from the work done in the co-operative farms plus earnings from individual plots, and including incomes of peasants in the non-co-operative sector, rose by 25.6 per cent in 1978 compared with 1975. Real per capita income from agriculture rose by 3.1 per cent in 1979, and a rise of 2.6 per cent has been planned for 1980.

In the Soviet Union, the wages of collective farm workers have increased substantially in the last few years and average monthly pay exceeded 100 roubles at the end of 1978—close to the wage in State farms. The pensions and social insurance of collective farmers are now covered by the nationwide system. The real per capita income of collective farm workers amounted to 88 per cent of the real per capita income of workers and employees in 1978.

Recent changes in incentive systems promote closer dependence of wage increases on the economic performance of agricultural enterprises. In Bulgaria, too, the new planning system will attempt to link wages more fully with final results. The new economic mechanism of self-financing will cover all agro-industrial complexes, agricultural research enterprises, and production corporations. The new mechanism links remuneration in agriculture to the profits realized by the corresponding agricultural organizations. The same principle will apply to the salaries of specialists and management cadres.

Pensions and social benefit payments in Bulgaria were increased by 4.0 per cent, pensions alone by more than 7 per cent. On 1 November 1979, allowances and other payments from the social consumption fund were increased in order to compensate for price increases. Wage supplements in respect of children up to 16 years were increased as follows: for one child, from 5 to 15 leva; for two children, from 20 to 40 leva; for three children, from 55 to 85 leva and for each subsequent child, from 5 to 15 leva a month.

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[119] *Pravda*, 29 November 1979.

All pensions were increased by 10 leva a month with the exception of co-operative farmers' pensions; these were raised by 6 leva a month. The maximum loan for the building or purchase of a dwelling was raised from 6,000 to 8,000 leva, with a 25-year repayment term.

In Czechoslovakia, payments from the social consumption fund increased by 3.7 per cent in 1979. Total pensions and social benefits were increased by 5.0 per cent in 1979 and a rise of 7.1 per cent has been planned for 1980. At the end of 1979, pensions were paid to 3,739,000 people. Old-age pensions average more than 1,160 crowns a month. Family allowances (90 crowns for one child, 430 crowns for two children, 880 crowns for three, 1,280 crowns for four plus another 240 crowns for every additional child) were paid out to about two million families for the upkeep of four million children, apprentices and students. Altogether 10 billion crowns were paid out in family allowances in 1978.

Starting in August 1979, all old-age, disability, widows' and orphans' pensions as well as early retirement pensions were raised by 30 crowns per month to compensate for price increases. The lowest pension categories which are also the recipients' sole source of income were raised from 600 to 780 crowns per month for a single person and from 1,100 to 1,300 crowns per month for a couple. The basic family allowance was increased by 50 crowns a month per child. In 1979, 39.8 billion crowns were spent on pensions.

In the German Democratic Republic, pensions for 3 million recipients were increased in December 1979. Old-age and disability pensions were raised by 40-60 marks, bringing the minimum pension up to 270 marks. All old-age and disability pensions fixed prior to 1978 which were bigger than the old minimum amounts, have been increased by up to 20 per cent, depending on the year in which the pension payments began. The increases were biggest for the pensions of the oldest citizens.

Pension increases have been introduced for other groups, including victims of accidents and war. It has been reported that social welfare benefits have also been raised, but specific data were not released. The trade union social security system spent almost 22.4 billion marks in 1978, about 1.8 billion marks more than in 1977; half of this sum was spent on pensions.

In Hungary, considerable increases in total pension and social benefit payments were granted in 1979 (18 per cent) as well as in pensions (21.7 per cent). Following price increases in July 1979, pensioners and those entitled to annuities and other regular allowances are receiving 180 forints per month in their own right, and a further 180 forints per month in respect of dependents entitled to a married allowance. In cases of families with more than one child, the family allowance per child was to rise by 130 forints per month. University and college students were to receive 180 forints more per month.

During the 1972-1977 period, the relative situation of pensioners has improved; while on a per capita basis they lagged 32 per cent behind the national average income in 1972, by 1977 this figure had dropped to 20 per cent.

In Poland, high rates of growth in social benefits and pension payments continued in 1979 (17.0 and 18.6 per cent). The average old-age pension and retirement benefit has increased from 1,144 zlotys a month in 1970 to 2,457 zlotys in 1979. The lowest pension was increased from 1 January 1980. The Pensions Act extended pension rights to 155,000 self-employed farmers, one-third of whom have handed over their private farms to the State and the remainder to their heirs. The scheme includes certain other benefits: over 200 million zlotys in 1979 were paid in sickness allowances and 300 million as compensation to self-employed farmers who suffered temporary or permanent invalidity as a result of accidents at work. More than 40,000 peasants have received compensation for damage caused by floods to buildings, crops and meadows. According to the Ministry of Agriculture, the damage was estimated at 5 billion zlotys.

Resolutions on the alimony fund, a rise in family benefits, the introduction of a 500 zloty benefit for families bringing up handicapped children and a 500 zloty grant per child for low-income families with seven or more children and the introduction of benefits for mothers on unpaid leave taking care of small children, were adopted by the Council for Family Affairs in March 1979.

In Romania, starting 1 October 1979, over 4.5 million children received increased State benefits. This is the second 15 per cent increase in State child benefits in the current five-year period. It was stated that pensions from the State social insurance fund have been increased by 11.5 per cent in 1979. An increase was also granted in pensions exceeding 2,500 lei monthly.

Starting 1 January 1978, a shorter work-week programme was introduced, so that by the end of 1979 about 80 per cent of the working personnel benefited from a reduced work-week of 46 hours.

In the Soviet Union, social benefits and pensions were increased as planned in 1979 (by 2.3 and 3.5 per cent). A considerable rise in these rates of growth is expected in 1980. From 1 January 1980, with a view to further expanding the use of pensioners' labour in the national economy, additional steps were taken towards the wider recruitment of pensioners for work particularly on a part-time basis, especially in the production sphere, and also at trade enterprises and other service enterprises and organizations.[120]

A supplement to pensions for work after retirement has been set at 10 roubles per month for each year of work after retirement age is reached. The total supplement is not to exceed 40 roubles per month, and the total pension plus supplement is not to exceed 150 roubles per month.

A list of categories of employees who are entitled to receive 50, 75 or 100 per cent of their designated old-age pensions while working, but no more than 300 roubles per month when combined with their earnings, and of certain employees who are entitled to their full pensions, regardless of their earnings, has been extended.

In 1979, further improvements were introduced in the living conditions of war veterans. For several categories of medical doctors, additional paid annual leave was established for uninterrupted service. The norms of expenditures on pensions and invalid houses were increased. On 1 September 1979, charges for text-books were abolished in the second and third grades of general education schools.

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[120] *Izvestia*, 2 October 1979.

Non-taxable income continued to increase; in 1979, incomes of up to 70 roubles per month were untaxed as were also collective farmers' incomes, pensions and child benefits. The maximum tax on monthly incomes of up to 100 roubles is 8.2 per cent; above that there is a uniform rate of 13 per cent.

Social consumption funds cover about one-fifth to one-third of total incomes of the population. In most countries of the region, the biggest share of payments from these funds in 1978 was spent on pensions and benefits (38-58 per cent), education and culture (20-25 per cent) and on medical services (14-25 per cent)—see text table below.

The structure of social consumption funds in 1978

(Total = 100)

	Bulgaria	*Czechoslovakia*	*German Democratic Republic*	*Hungary*	*Poland*	*Soviet Union*
Pensions and benefits	45.4	49.0	37.9	58.0	43.9	39.4
Free medical service	14.9	15.5	17.1	14.0	24.3	14.7
Education and culture	22.1	20.3	21.7	20.0	22.5	25.3
House rent subsidies	..	4.1	10.3	2.0	7.2	5.7
Other payments	17.6	11.1	13.0	6.0	2.1	14.9

Source: Statistical Yearbook of the CMEA, 1979, pp. 49-50.

Private savings deposits increased considerably in monetary terms in practically all countries of the region in 1976-1978, and rose faster than the total money incomes of the population (table 5.2 and text table).

	Annual percentage change			
	1976	*1977*	*1978*	*1979*
Bulgaria	7.9	4.9	3.5	..
Czechoslovakia	8.9	8.6	3.8	5.2
German Democratic Republic	6.5	7.3	6.9	..
Hungary	14.3	15.7	16.2	8.7
Poland	10.3	10.9	10.4	..
Soviet Union	13.2	8.6	12.4	11.5

Sources: As for table 5.1 and *CMEA Yearbook, 1979.*

In Hungary at the end of October 1979, the deposits of the population in the National Savings Bank totalled 132 billion forints, compared with 120 billion at the same date in 1978. Total credit outstanding reached 91 billion forints by October 1979, and was used primarily for the purchase of flats built by the State, or privately with the assistance of banks, for building houses and for assisting farming. After the price rises in June 1979, there was a slight decrease in the sum deposited but the decline was subsequently reversed.

(ii) Consumer prices and price policies

The maintenance of price stability was a main objective of consumer price policy in most countries of the region. Increased costs for home products and higher prices of imported materials have had to be covered by subsidies. In some countries, notably Czechoslovakia and especially Hungary, planned price increases were introduced in order to keep subsidies at a lower level, and increases in the range of 5.0 to 6.0 per cent were planned in Romania within the current five-year-plan framework. Substantial price increases—from which basic foodstuffs were exempted—were registered in Poland (table 5.3). In Bulgaria, the German Democratic Republic and the Soviet Union, consumer price indexes remained either unchanged or increased by less than 1 per cent annually between 1976-1978. This situation changed in 1979, with increases in the prices of various consumer goods announced in all countries but the German Democratic Republic.

In *Bulgaria*, as a result of price increases in May and November, 1979, the consumer price index rose by around 4 per cent compared with an aggregate rise during 1976-1978 of 2.1 per cent. The price of petrol was increased in May 1979. The new retail price system was introduced on 12 November. The intention was to reduce budget subsidies by raising prices in line with the movement of production costs and also of world market prices.

The main elements of the adjustment were as follows: retail prices of wheat flour were increased by 25 per cent and of bread by about 40 per cent; the price of milk rose by 38 per cent and the price of butter by 28 per cent; the price of meat increased on average by about 45 per cent, of which poultry by 20 per cent and pork by 41 per cent; the price of granulated sugar increased by 43 per cent and vegetable oil by 25 per cent; the retail prices of alcoholic drinks were increased by 45 per cent on average. The State budget will, however, cover in full increased expenditures on food in children's establishments, hospitals, nursery schools, and also increases in expenditure on the upkeep of school and university students and office canteens.

The retail prices of some building materials, such as bricks, tiles, building aggregates, timber, construction materials, etc., were increased by 40 per cent on average. The prices of electricity and liquid fuel for heating sold to the population were increased by 77 and 100 per cent respectively, but restrictions on their consumption were removed. The prices of tickets for cultural establishments, postal, telegraph and telephone services and for some other services were also raised.[121]

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[121] *Rabotnichesko Delo*, 12 November 1979.

TABLE 5.3

Consumer price index

(Preceding year = 100)

Country and year	*Total*	*Food*	*Non-food*		*Services*
Bulgaria[a]					
1976	100.2	100.4	100.0		..
1977	100.4	100.3	100.6		..
1978	101.5	101.3	101.7		..
1979	104.5	105.6	103.5		..
Czechoslovakia					
1976	100.8	101.3	101.0		100.2
1977	101.3	101.4	101.8		100.6
1978	101.6	101.9	101.6		100.4
1979	103.0	..	..		..
Plan 1980	102.9	..	..		..
German Democratic Republic					
1976	100.0	100.0	100.0		100.0
1977	99.8	100.0	99.7		100.0
1978	100.0	100.0	99.9		100.0
Hungary		[a]			
1976	105.0	105.7	105.0		102.4
1977	103.9	105.6	102.7		103.2
1978	104.6	105.9	104.1		103.9
Plan 1979	104.7-104.9	..	..		..
1979	109.0	..	..		..
Plan 1980	103.7	..	..		..
Poland		[b]			
1976	104.4	104.6	106.0		103.2
1977	104.9	107.4	104.7		104.8
1978	108.1	107.4	107.3		103.9
Plan 1979	105.3[c]	..	..		..
1979	106.7	..	..		..
Plan 1980	ca. 105.0[c]	..	..		..
Romania			*Clothing*	*Fuel*	[d]
1976	100.7	100.6	100.0	109.0	102.6
1977	100.5	100.9	100.5	100.4	101.0
1978	101.5	100.9	100.4	100.6	102.4
1979	102.5	..	..		..
Plan 1976-1980	101.0-101.2[e]	..	..		..
Soviet Union					
1976	100.0	100.0	100.0		..
1977	100.3	100.0	101.0		..
1978	100.7	101.1	100.2		..

Sources: As for table 5.1.

[a] Retail price index. In the case of Bulgaria, data are for State retail price changes.

[b] Excluding alcoholic beverages.

[c] Derived from index of nominal money income and real income.

[d] Rent.

[e] Annual average.

According to 1978 family budget data, the latest changes in retail prices affected about 52 per cent of total expenditure on goods and services; the increases have been offset by the simultaneous introduction of the new system of remuneration summarized earlier.

In *Czechoslovakia*, the consumer price index increased by 3.7 per cent in the period 1976-1978 and by 3 per cent in 1979. For 1980, an increase of 2.9 per cent has been planned. At the end of July 1979, the retail prices of fuel and energy were increased by 50 per cent. The budget-financed difference between the cost of procuring fuels and energy and the price paid by the population was 3 billion crowns. With the continuing increase of procurement costs, it is estimated that the subsidies will amount to over 7 billion crowns per annum after 1980. The price increase will meet only 4 billion crowns of the rise in procurement costs, and the loss in benefits was offset by increased family allowances.

A preferential retail pricing system on children's clothing was introduced in 1953. Prices were kept artificially low in relation to the real production costs. In recent years the resulting subsidies amounted to an annual sum of 2.3 billion crowns, but domestic consumers benefited from the subsidy by only 1.6 billion crowns. The system was abolished in 1979, and the resulting price rise compensated by an increase in children's allowances of 50 crowns per month, which totalled 2 billion crowns per annum. The difference of 1 billion crowns is destined to compensate for increased family expenditure on fuels and energy following the price increases announced in 1979. All pensions have been increased accordingly. New postal, telephone and telegraph tariffs were announced, which will eliminate budget grants (totalling 327 million crowns in 1978).[122]

As a result of price rises, the consumption of petrol fell by 13 per cent between August and November 1979.

In the *German Democratic Republic*, retail trade prices for basic consumer goods, rents for transport and service tariffs remained unchanged in 1979, and will continue unchanged in 1980. In 1979, State subsidies on consumer prices for food, industrial goods, transport fares and other services amounted to 15.5 billion marks—an increase of 9.3 per cent over the previous year. It was reported that subsidies at the end of 1977 amounted to 26.9 per cent of the value of food products and 37 per cent in the case of transport fares. The share of the State consumer price subsidies in total retail trade turnover in 1976-1979 exceeded 15 per cent.[123]

Changes in the system of consumer price formation were announced in December 1979. Consumer goods will be classified into three price categories. In the first, consisting of essential basic goods, prices will remain stable. In the second, consisting of a number of standard quality goods accounting for the bulk of retail trade turnover, prices may be supported by subsidies, but to a much smaller extent. New, high quality industrial goods which constitute the third group will be sold, as a rule, at their full market value and at prices which will fully cover costs and normal profit.

In *Hungary*, the consumer price index increased by 14.1 per cent during the period 1976-1978 and by 9 per cent in 1979. In 1980, an increase of 3.7 per cent is expected. The adjustment of consumer prices to producer prices was considered necessary to improve the country's balance of payments, and to preserve budgetary equilibrium notably by preventing further increases in consumer price subsidies. On 23 July 1979, the Council of Ministers of Hungary approved the raising of consumer prices and service charges by about 9 per cent over 1978.[124] Two-thirds of the increase was due to rises in the price of food, which rose by 20 per cent, and fuels and electric power by 34 per cent. The retail price of footwear was increased by an average of 27 per cent, clothing by 4 per cent, furniture by 16 per cent, detergents by 19 per cent, motor cars by 20 per cent and construction materials by 12 per cent. In industrial services, the charges for washing and dry cleaning were increased by 30 per cent, for shoe repairs by 45 per cent and for cultural services (theatre, cinema etc.) by 30 per cent. The retail prices of gas and oil were also increased on 11 June 1979.

On 1 November 1979, the price of food in second class restaurants was cut by an average of 10 per cent. The price of spirits and beer in these restaurants was raised to offset this. The consumer and State purchase price of gold artefacts was increased by 30 per cent from 26 November 1979. Because of the changed producer prices, certain consumer prices were also changed in January 1980. Some suits and woollen goods became cheaper by 20 to 30 per cent.

In spite of some price increases, the amount paid for subsidies has risen in 1978, the last year for which data are available. Revenue from sales tax amounted to 29 billion forints, but 41 billion forints was spent on subsidizing retail prices, 5 billion more than in the preceding year. Sales tax was highest on luxury items such as drink, tobacco and coffee, which brought in almost 65 per cent of total budget revenues. Sales tax on clothing brought in about 15 per cent. Some 36 per cent of total subsidies in 1978 was disbursed on basic foodstuffs such as meat, bread and milk; 28 per cent on transport and almost 20 per cent on industrial products. The State subsidy on food prices amounted on average to 27 per cent of retail food prices. Its share of the price of butter was 85 per cent; beef—45 per cent; bread—40 per cent; milk—60 per cent; sugar—20 per cent. The subsidy on heating was 200 per cent.

In *Poland* the consumer price rise for the period 1976-1978 was 18.4 per cent and for 1979 about 6.7 per cent. A price increase of 5 per cent is expected for 1980. As a result of increases in the prices of oil purchased on foreign markets, the retail prices of petrol, engine oils and lubricating oils were increased by an average of 7.7 per cent in January, and by 15 per cent in July 1979. The prices of diesel oil, bottled gas produced from oil, as well as taxi fares, have also been increased.

The freezing of basic foodstuff prices, accompanied by the increases in over-all costs and in the procurement prices paid to farmers by the State, has resulted in a growth of food subsidies. In 1979, these subsidies totalled more than one-quarter of all budgetary expenditures. In 1980, price subsidies on food articles will amount to about 150 billion zlotys, whereas subsidies on the price of non-food consumer goods and services, mainly transport, will reach about 30 billion zlotys.[125]

All these subsidies have created strong pressure on the existing price system in Poland. One-third of all prices in the country are set by State price commissions, the rest being in the hands of manufacturers. A new law on prices will increase the controlling power of the commissions.

In *Romania*, a consumer price increase of 2.7 per cent was reported for 1976-1978 and one of 2.5 per cent for 1979. In the middle of March 1979, prices of certain products of the wood and pulp, light and chemical industries were raised, as well as those of certain metal products. At the same time, the retail prices of synthetic yarn knitwear, silk-type fabrics and of certain medicines were cut. The net effect of these changes raised the retail price index by 0.5 per cent over the previous level. In the middle of May, the retail prices of canned fruit and vegetables, some kinds of canned fish and fish products, certain

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[122] *Rudé Právo*, 23 July 1979.

[123]

State subsidies
(*Billion marks*)

	1976	*1977*	*1978*	*1979*	*Plan 1980*
Subsidies to ensure low stable consumer prices and tariffs	13.1	13.7	14.2	15.5	16.4
Subsidies to housing, including those for the maintenance of low rents	4.6	5.4	6.0	6.6	7.1

Sources: As for table 5.1.

[124] *Népszabadság*, 22 July 1979.

[125] *Trybuna Ludu*, 21 December 1979.

sugar products and medical herbs were increased by 32.8 per cent on average. This increase raised the retail price index by 0.3 per cent in 1979, which is within the limit fixed for the current five-year-plan period.

In the middle of June, the retail price of petrol was raised by 32 per cent. Starting on 1 August 1979, electric power tariffs for lighting and household use were increased as also were the tariffs for thermal power for district heating generated by thermo-power stations, and tariffs for natural gas for district heating.

In the *Soviet Union*, the consumer price index rose by 1 per cent over the 1976-1978 period. On 1 July 1979, the retail prices of goods made of precious metals, carpets, rugs, natural furs and fur articles were raised by an average of 50 per cent, those of private cars by an average of 18 per cent, those of imported furniture by an average of 30 per cent, and those of home-made furniture by an average of 10 per cent. Prices in restaurants and cafes have been raised by 25-45 per cent, depending on the category to which these enterprises belong. The price of beer sold by catering establishments has also been increased by an average of 45 per cent. Prices remain unchanged in the dining halls of enterprises, organizations and educational institutions. The current retail prices of beer in the retail trade network have not been changed.

In connexion with the rise in the price of gold wedding rings, the subsidy that is paid upon registration of the marriage has been increased to 70 roubles per person for the first marriage. The increase in retail prices pertains to a very limited range of goods and does not affect basic foodstuffs or food items. The prices of meat and milk have not been raised in the last 17 years, and the prices of bread, cereals and sugar have remained unchanged during the past 25 years.[126] The same applies to outerwear, footwear, medicines and some other consumer goods. The price of electricity and gas has remained unchanged for many years. Rents have remained unchanged for more than 50 years.

(iii) Consumer supplies and housing

(a) *Retail trade*

In 1979 the rise in annual retail sales in the countries of the region compared with 1978 ranged between 1.5 per cent in Poland to 5.8 per cent in Romania (table 5.4). In most countries the increases were somewhat lower than in 1978. The turnover of industrial consumer goods in 1979 generally rose more rapidly than that of food products.

In *Bulgaria* sales of cheese, butter, clothing, shoes and furniture in 1979 increased considerably in comparison with the previous year (by 5-10 per cent). Sales of meat and meat products, milk and vegetable oil rose moderately. Shortages in the supply of fish and fish products, sugar and building materials were, however, reported.

In *Czechoslovakia* the share of food products in total retail trade was 46.5 per cent in 1979. The supply of milk products fell short. The supply of fuel was improved.

In the *German Democratic Republic*, sales of industrial consumer goods rose faster than foodstuffs (by 3.7 as against 2.7 per cent). Compared with the first six months of 1978, the supply (in volume terms) of meat, sausage products and eggs rose by 2 per cent, fat cheese by 4 per cent, and baby food by 10 per cent during the first half of 1979. However, shortages of industrial consumer goods developed—in particular of furniture and some home electric appliances.

TABLE 5.4

Turnover of retail trade and services

(*Annual percentage change*)

Country and period	*Total*	*Food*	*Non-food*	*Services*
Bulgaria				[a]
1976	7.3	7.2	7.2	3.7
1977	3.1	1.2	4.6	13.3
1978	3.6	3.1	4.0	−4.5
Plan 1979...........	4.1	..	..	7.0
1979	2.3	3.0	1.8	..
Plan 1980...........	4.6	..	..	..
Plan 1976-1980	7.0	..	..	10.5
Plan 1981...........	4.6	..	..	..
Czechoslovakia				
1976	2.0	2.2	1.8	..
1977	1.4	1.2	1.5	..
1978	3.7	2.7	4.9	..
Plan 1979...........	ca. 3.0	..	..	..
1979	3.6	2.4*	5.0 [b]	..
Plan 1980...........	3.4	3.3 [b]	..	..
Plan 1976-1980	4.2-4.6	..	..	3.7-4.1 [c]
German Democratic Republic				
1976	4.6	3.5	5.8	..
1977	4.4	4.0	4.0	..
1978	3.4	3.4	3.4	..
Plan 1979...........	4.0	3.6	4.4	..
1979	3.2	2.7	3.7	..
Plan 1980...........	4.0	3.4	4.7	..
Plan 1976-1980	4.0 [b]	2.5-3.0 [b]	4.5-5.0 [b]	..
Hungary				[d]
1976	1.4	3.2	−0.1	6.9
1977	6.2	3.2	8.8	13.9
1978	3.9	2.1	5.5	12.4
Plan 1979...........	3.0-4.0	..	..	..
1979	1.7	0.0	2.8*	10-11
Plan 1980...........	..	..	..	..
Plan 1976-1980	4.8	3.9	5.5	..
Poland		[e]		
1976	7.2	8.0	4.5	13.7
1977	6.0	1.1	6.4	14.7
1978	1.1	3.1	1.8	10.6
Plan 1979...........	3.6* [b]	4.6* [b]	2.8* [b]	9.6
1979	1.5*	2.2*	0.8*	7.9
Plan 1980...........	0.2* [b]	—* [b]	0.4* [b]	8.7
Plan 1976-1980	10.0	6.2-6.5	..	11.2
Romania				
1976	9.4	3.5	8.3	6.1
1977	6.9	4.0	9.9	4.7
1978	12.1	8.7	13.4	14.4
Plan 1979...........	8.3	..	..	19.7
1979	5.8	..	..	4.6
Plan 1980...........	9.3	..	..	11.6
Plan 1976-1980	8.7	..	..	11.9

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[126] It has been reported that State subsidies on foodstuffs amounted to 25 billion roubles.

TABLE 5.4 (*continued*)

Country and period	*Total*	*Food*	*Non-food*	*Services*
Soviet Union				[f]
1976	4.6	3.9	5.6	8.0
1977	4.5	3.7	5.3	6.5
1978	3.9	2.9	5.6	8.0
Plan 1979	4.8	..	..	7.7
1979	4.2	..	..	7.6
Plan 1980	5.1	..	..	7.3
Plan 1976-1980	5.2	..	..	8.3
Byelorussian SSR				
1976	4.4	2.9	5.3	9.2
1977	5.8	5.7	6.3	5.1
1978	4.4	4.0	4.8	9.3
Plan 1979	5.1	..	..	7.0
1979	5.9	..	..	7.1
Plan 1980	5.3	..	..	6.8
Plan 1976-1980	5.1	..	..	8.3
Ukrainian SSR				
1976	4.2	3.9	4.2	7.9
1977	4.6	2.9	6.7	7.8
1978	3.7	2.8	4.5	7.9
Plan 1979	4.7	..	..	7.9
1979	3.7	..	..	7.0
Plan 1980	4.8	..	..	6.5
Plan 1976-1980	4.9	..	..	8.1

Sources: As for table 5.1.

Note: Unless otherwise indicated, figures for turnover of retail trade are at constant prices, and data for services at current prices.

[a] Industrial services only.

[b] Supplies to retail trade.

[c] Communal and co-operative sectors only.

[d] Value of services (excluding social services) provided to the population.

[e] Excluding alcoholic beverages.

[f] Prices of 1976.

In *Hungary* drawings on savings together with some expansion of consumer credit apparently maintained the level of retail sales. Retail trade turnover rose by 11.6 per cent at current prices, and by 1.7 per cent in volume compared with 1978. Of the total, food and consumer goods accounted for 31.6 per cent, catering for 13.6 per cent and clothing for 13.5 per cent.

Clothing supplies were satisfactory apart from occasional lack of choice, and supplies of shoes improved. Insufficient supplies of some home electrical appliances, colour TV sets and furniture were reported. The availability of heating materials was adequate, and the demand for good quality coal and briquettes exceeded supply. Building materials, in particular cement, bricks and wood, were also in short supply. Imports, mostly from the CMEA countries, accounted for 18 to 20 per cent of retail trade turnover.

In *Poland* supplies of many consumer durables rose markedly in 1979, but supplies of such goods as washing machines, television sets and cars decreased in the first half of the year. Some industries did not fulfil their plans for market production. As a result, some goods—especially meat—were in short supply at a time when the purchasing power of the population increased. In order to improve the situation it was agreed to use the central reserve fund for new investments—principally in the food sector, processing enterprises such as bakeries, dairies, fruit and vegetable plants, soft drink factories, and for potato storage.

Adjustment measures proposed during 1979-1980, will increase the role of small-scale industry in supplies to consumers. At the beginning of 1979, small-scale industries and the marketed products and services accounted for almost 12 per cent of total industrial output. The agency system introduced in previous years had been adopted for more than 9,400 small shops by mid-1979. Some adjustments to the system were introduced by the Ministry of Internal Trade on 1 July 1979. The new scheme will cover 25 large State-owned trade enterprises throughout Poland. Managers of these shops assume full responsibility for employment of staff, wages and in part for prices. Wages will be paid from a fund financed by between 10 and 20 per cent of the store profits. Managers will exercise freedom with regard to suppliers—including foreign partners. Their obligation to the State consists of the payment of a contribution based on the average turnover of previous years. Net profit may be used for the trade enterprise at the manager's discretion.

In 1980 the supply of consumer goods is planned to increase by 5.2 per cent and of services by 8.7 per cent. It is anticipated that food supplies will increase by 4.9 per cent and non-food items by 5.4 per cent.

In *Romania* retail sales turnover rose by 5.8 per cent in 1979 and an accelerated rate of 9.3 per cent is envisaged for 1980. Sales of meat and meat products are to be increased by 8 and 14 per cent respectively in comparison with the same period of the previous year, and milk by 20 and 8.6 per cent.

In the *Soviet Union*, retail trade sales in State and co-operative trade exceeded 252 billion roubles in 1979 and increased by 4.2 per cent. In the Byelorussian SSR the rise was 5.9 per cent and in the Ukrainian SSR 3.7 per cent. The total volume of services to the population amounted to about 7.4 billion roubles in the Soviet Union (7.6 per cent more than in 1978).

Annual targets for the production of a number of consumer goods in 1979 were not met in full, and the rate of increase in incomes exceeded the rate of growth of consumer-goods production. This generated certain difficulties on consumer markets.[127] In 1978, the wage-fund increased by 17 per cent, collective farmers' incomes by 20 per cent, and the social consumption funds by 17 per cent. Industrial production of consumer goods (Group B) increased by 13 per cent. Imports of consumer goods were not large enough to compensate for the relative lag in light industry output growth. State and co-operative sale of meat and meat products in 1978 was the same as in 1975—10 million tons—while the share of private auxiliary farming in total meat production decreased from 40 per cent in 1965 to 30 per cent in 1978.[128] Shortages were aggravated by deficiencies in the work of transport organizations and a lack of flexibility in satisfying consumer demand.

In the cotton industry, output of consumer goods fell below the plan for 1979. There was a shortfall of almost 84,000 tons of yarn, and over 300 million metres of cotton fabric. In order to improve the situation in the textile industry, 66 per cent of capital investments earmarked for this industry in 1979 were earmarked for technical mod-

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[127] *Pravda*, 28 November 1979.

[128] *Planovoe Khozyaistvo*, No. 9, 1979, p. 91.

Share of collective farm markets in retail trade turnover in the USSR

(*Percentages*)

	Total trade		*Food products*[a]	
	At current market prices	*At State retail trade prices*	*At current market prices*	*At State retail trade prices*
1970	2.6	1.7	8.5	5.5
1975	2.4	1.3	8.1	4.6
1976	2.6	1.3	8.8	4.8
1977	2.4	1.2	8.5	4.5
1978	2.5	1.2	8.8	4.4

Sources: As for table 5.1.

[a] Computed on the basis of the same sales structure as State and co-operative trade.

ernization, reconstruction and enlargement of the existing textile enterprises. At the same time, textile enterprises face difficulties caused by equipment supplies and lack of some raw materials.

Over the three years of the current five-year-plan period the output of consumer goods for cultural, domestic and household needs increased by 24 per cent, to a value of 21.1 billion roubles in 1978. The plan for economic and social development of light industry in 1980 envisages an increase in the annual output of all types of fabrics by 5.6 per cent, including that of cotton fabrics by 6.2 per cent, and leather footwear by almost 5 per cent.

The consumer-goods industry's production is scheduled to increase by 4.5 per cent, the same rate as in the group "A" industries.

Much attention was given by industrial ministries to standardization. Thirty-four programmes for comprehensive standardization of many types of consumer goods have been elaborated and introduced. According to these programmes, at the beginning of 1979, more than 290 Soviet and CMEA standards and 347 industrial branch standards and specifications have been authorized. At the same time it was mentioned that the potential for increasing the output of consumer goods at heavy-industrial enterprises has not been fully utilized.

In November 1979 a decision "On the further development and improvement of the activities of consumer co-operatives" was adopted in the Soviet Union. During 1976-1978 co-operative retail trade turnover per consumer had increased by 13.9 per cent in comparison with 7.6 per cent for State retail trade.[129]

Private auxiliary farming also provided food products, largely fresh milk, eggs, vegetables and fruit. In 1976, supplies from this source accounted for 10 per cent of total marketed agricultural output. However, the unmarketed portion of the milk produced by private farming has risen by 19.6 per cent, meat by 45 per cent, and eggs by 160 per cent in the 1970-1977 period. The unmarketed portion of potatoes declined 4.7 per cent, vegetables by 16.4 per cent and wool by more than 80 per cent.[130] The share of the collective farm market in the Soviet Union's total retail sales was only around 2.5 per cent at current prices during the period 1970-1978. Its share in food sales was around 8.5 per cent. (See text table.)

The problem of supplies of consumer goods has been considered of such importance within the region that two out of the five long-term target-oriented co-operation programmes adopted within the CMEA framework are related to this issue. The programme relating to agriculture and the food industry was adopted at the 32nd meeting of the CMEA (1978). The following joint measures were planned in the field of the food industry: improvement of technology and equipment for the processing of meat and meat products; perfected fresh-water fish-raising techniques on an industrial basis, including the breeding of new hybrids; the development and introduction of new oil-seed processing technology; the improvement of equipment and technology for sugar production from sugarbeet, based on new chemical methods and the automation of sugar factories and refineries; the development of new technological processes and a high degree of mechanization for the storage and processing of fruit and vegetables.

A long-term programme of co-operation in the manufacture of consumer goods up to 1990 was approved by the 33rd Session of the CMEA (June 1979).

(b) *Housing construction*

In 1979 more dwellings were built in most countries of the region than in 1978 (table 5.5). Among east European countries only *Czechoslovakia* built less apartments than in 1978; with around 82 apartments per 10,000 inhabitants, it remained among the countries with the most intensive housing construction programme.

In the *German Democratic Republic*, 5,500 more dwellings were constructed than in 1978 and a total of 45,400 dwellings were modernized. With 70 new apartments per 10,000 inhabitants, the German Democratic Republic has the least intensive construction of new apartments, but great attention is paid to the modernization and reconstruction of old apartments. In 1979 expenditures on housing construction and the maintenance of low rents increased by 10 per cent, amounting to 6.6 billion marks.

In *Hungary* construction in 1979 was in line with the 15-year national housing programme, which envisages the building of 1,200,000 flats by 1990 and the renovation of more than 300,000 others. In 1979 dwelling construction stagnated. The plan for 1980 envisaged some slow-

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[129] *Ekonomicheskaya Gazeta*, No. 17, 1979, p. 1.

[130] *Ekonomika Selskogo Khozyaistva*, No. 1, 1979, pp. 51-56.

TABLE 5.5

New dwellings constructed

Country and period	New dwellings (thousands) Total	State	Co-operative	Individual[a]	Units per 100,000 inhabitants	Average size of dwellings in square metres
Bulgaria						
1976	67.6	37.2	30.4		770	62.9
1977	75.9	40.5	35.4		860	61.9
1978	67.8	34.0	33.8		770	60.2
Plan 1979	82.5	..	..		..	..
1979	71.5	..	..		..	..
Plan 1980	79.5	..	..		..	..
Plan 1976-1980	420.0	..	..		..	..
Czechoslovakia						
1976	132.5	59.8	33.1	39.6	888	46.5
1977	134.8	55.4	39.3	40.1	888	47.5
1978	129.3	51.2	40.2	37.9	854	48.5
Plan 1979	130.0	..	..	..	..	..
1979	126.0	38.0	46.9	35.7	..	..
Plan 1980	141.0	..	..	..	..	..
Plan 1976-1980	..	..	..	..	..	..
German Democratic Republic[b]						
1976	103.1	54.6	37.4	11.1	615	60.8
1977	106.8	54.5	40.5	11.8	637	61.2
1978	111.9	56.9	43.1	11.9	668	61.7
Plan 1979	114.4	..	..	10.9	..	..
1979	117.4	..	..	12.6	701*	..
Plan 1980	116.1	..	..	10.7	..	..
Plan 1976-1980	550.0	247.5	247.6	55.0	..	..
Hungary						
1976	93.9	32.4	61.5		888	64.6
1977	93.4	34.0	59.4		879	64.7
1978	88.2	31.7	56.5		827	65.0
Plan 1979	90.0	31.0	59.0		..	..
1979	88.3	34.2	54.1		..	..
Plan 1980	82.0	..	..		..	..
Plan 1976-1980	430.0-440.0	150.0-160.0	280.0		..	..
Poland						
1976	273.3	54.1	155.6	63.5	795	58.2
1977	275.9	49.6	152.7	73.6	795	61.0
1978	292.0	48.8	..	..	..	..
Plan 1979	337.0-341.0	..	..	..	..	..
1979	320.0	..	..	..	..	..
Plan 1980	340.0-346.0	..	..	..	..	..
Plan 1976-1980	1 575.0	..	..	..	..	63.8-64.5
Romania						
1976	139.4	67.4		72.0	650.2	72.8
1977	145.0	78.0		67.0	670.0	74.0
1978	166.0	94.0		72.0	756.0	75.0
Plan 1979	248.0	117.0		131.0	..	..
1979	191.1	..		..	..	..
Plan 1980	250.0	..		..	..	..
Plan 1976-1980	1 291.0	..		..	..	..
Soviet Union						
1976	2 113	1 720		393	816	50.3
1977	2 111	1 726		385	808	51.1
1978	2 080	1 703		377	796	51.3
Plan 1979	2 155	..		..	818	..
1979	2 000	..		..	..	51.3
Plan 1980	2 120	..		..	..	51.5
Plan 1976-1980	11 000*	..		..	..	..

Sources: As for table 5.1.

[a] Financed from State credit and self-financed by individual dwelling owners.

[b] Excluding modernization of dwellings. The number of modernized dwellings was 47,526 in 1976; 55,119 in 1977, 55,890 in 1978 and 45,388 in 1979.

down in construction but the plan target will still amount to over 80 apartments per 10,000 inhabitants.

Poland recorded the largest annual increase in construction of new dwellings in 1979—28,000 apartments (10 per cent) more than in 1978. This continues the accelerated rate of housing construction started in 1978. The programme resulted in improved housing conditions for 1,000,000 citizens in 1979—the highest intensity of dwelling construction in the region at almost 100 apartments per 10,000 inhabitants.

In *Romania*, the aftermath of the earthquake of March 1977 was eliminated. With the completion of more than 191,000 newly built apartments in 1979, Romania recorded an increase of 25,000. This was a considerable increase in the intensity of housing construction, as the number of new apartments increased to 87 per 10,000 inhabitants compared with 76 in 1978 and 67 in 1977. In the 1980 plan, special attention has been paid to the construction of one-room flats.

In the *Soviet Union* apartment houses with a total floor space of 102.5 million square metres were turned over for tenancy in 1979. This was slightly below the average for 1976-1978 (106.8 million square metres). During the four years of the current five-year period, 423 million square metres in total were built, which improved housing conditions for about 42 million persons or 16 per cent of the total population. For 1980, the plan target is set at 109.4 million square metres. The total over the five-year period will hence amount to more than 530 million square metres.

New experience in the construction of fully prefabricated blocks of flats was introduced in dwelling construction. This has made it possible to cut expenses and also to improve the quality of flats and the architectural style of residential buildings. A resolution "On further developing the factory production of wooden panel houses and wooden sets for houses from local materials for rural housing construction" was adopted in November 1979.

In the *Byelorussian SSR*, 78,400 apartments were built with a floor space of 4.2 million square metres, the same as in the two preceding years. In the *Ukrainian SSR*, 340,300 apartments were built with a floor space of 18.2 million square metres. This was a slight slowdown as compared with 1978 and 1977. The average size of the apartments was around 53.5 square metres in both republics—slightly higher than in the Soviet Union as a whole (see text table).

Housing construction in the Byelorussian SSR and the Ukrainian SSR

(1976-1979)

	Byelorussian SSR		*Ukrainian SSR*	
	New dwellings (thousands)	*Area (million square metres)*	*New dwellings (thousands)*	*Area (million square metres)*
1976	76.2	4.0	356.4	18.4
1977	78.4	4.2	355.0	18.7
1978	78.7	4.2	344.6	18.4
1979	78.4	4.2	340.3	18.2

Sources: As for table 5.1.

(iv) Consumption

In 1978, the last year for which complete data are available, changes in aggregate public and private consumption varied between 1.7 per cent in Poland and 5.2 per cent in Bulgaria. The Soviet Union recorded a 5.1 per cent increase. Annual changes in consumption show more stable rates compared with those of net capital formation, due to the policies to restrict the growth of investment. Data relating to 1979 were available only for Bulgaria and Hungary, where increases of 6.6 and 2 per cent respectively were reported. In all other countries, the slowdown in consumption has probably resulted from the deceleration in over-all economic expansion.

The share of consumption in distributed NMP slightly increased during the last years, with the exception of Hungary in 1978 (see table 5.6). The biggest changes took place in Bulgaria and Poland in 1977. In the case of Czechoslovakia and the German Democratic Republic, the changes were more modest during the period under review. In Hungary, a declining share of consumption, associated with accelerated investment activity characterized the period up to 1978, but this trend was reversed in 1979. The share of consumption in Poland rose considerably—as in Hungary—in 1979—reflecting the combined effect of an unusually slow rate of growth in distributed NMP and a decline in net capital formation. Estimates for Hungary suggest a 25 per cent fall in net capital formation in 1979. A decline of 14 per cent was reported for Poland as well. In the Soviet Union, the share of consumption also increased.

Personal consumption in 1979 rose by 5.4 per cent in Bulgaria, rather higher than for total consumption. A similar tendency was apparent in Czechoslovakia in 1978. In all other countries, personal consumption has grown more slowly than social consumption in recent years. In 1978, the German Democratic Republic maintained a 0.4 percentage point difference in favour of public consumption. In Poland the difference was even bigger, personal consumption having grown by only 1 per cent in that year. In Hungary, the growth rate of personal consumption during the last four years as a whole lagged behind that of social consumption. Data for 1979 reported for Czechoslovakia indicate a 0.5 per cent increase in personal consumption, and somewhat higher growth—3 per cent—in Poland and Hungary.

An increasing share of personal consumption relative to all allocations for domestic use was common to all countries except Hungary up to 1978; however, this trend was most probably reversed in 1979 (table 5.6). The corresponding share of personal consumption rose from 46.4 per cent in 1976 to 53.2 per cent in 1978 in Bulgaria, and from 54.7 per cent to 55.8 per cent in Czechoslovakia. The German Democratic Republic had the highest share of personal consumption during this period—67.1 per cent in 1978. Of the five other countries of eastern Europe, Hungary is the only one where the share of this item declined—though it stood at almost 60 per cent in 1979; in Poland, its share rose from 55.2 per cent in 1976 to 57.4 per cent in 1978.

Some light can be thrown on changes in the *pattern of personal consumption* by use of data on family expenditures (table 5.7). To avoid problems of comparability, only five major groups of expenditures were used, though these represent some 70 per cent of total family expenditure in most cases. Some loss of comparability results

TABLE 5.6

Allocations for domestic use

(Percentage of distributed NMP)

Country and period	Consumption			Net capital formation		
	Total	Personal	Social	Total	Net fixed capital formation	Changes in stocks
Bulgaria						
1976	71.0	46.4	24.6	29.0	19.7	9.3
1977	75.3	49.2	26.1	24.7	18.6	7.8
1978	76.1	53.2	22.9	23.9	19.2	4.7
Plan 1979	74.0	..	..	26.0	..	..
1979	75.0	..	..	25.0	..	..
Plan 1980	63.0-74.0	..	..	26.0-27.0	..	..
Plan 1976-1980	74.0	..	..	26.0	..	..
Czechoslovakia						
1976	74.3	54.7	19.8	25.7	20.3	5.1
1977	75.8	55.3	20.5	24.2	21.8	2.4
1978	76.3	55.8	20.6	23.7	21.4	2.3
German Democratic Republic						
1976	77.1	66.2	10.9	22.9	19.5	3.4
1977	77.1	66.0	11.1	22.9	19.4	3.5
1978	78.4	67.1	11.3	21.6	19.2	2.4
Hungary						
1976	74.2	64.4	9.8	25.8	20.0	5.8
1977	73.0	63.4	9.6	27.0	18.2	8.8
1978	69.7	59.8	9.9	30.3	18.9	11.4
Plan 1979	71.0 *	..	..	29.0 *	..	..
1979	74.0 *	..	..	26.0 *	..	..
Plan 1980	74.5 *	..	..	25.5 *	..	..
Plan 1976-1980	73.0-75.0	..	..	25.0-27.0	..	..
Poland						
1976	65.9	55.2	10.7	34.1	26.8	7.3
1977	68.5	57.3	11.2	31.5	27.2	4.3
1978	69.2	57.4	11.8	30.8	26.1	4.7
Plan 1979	70.9	..	..	29.1	21.0	8.1
1979	74.3	..	..	25.7	..	..
Plan 1980	76.5	..	..	23.5	17.0-18.0	ca. 6.0
Soviet Union						
1976	73.0	..	..	27.0	..	..
1977	73.6	..	..	26.4	..	..
1978	73.7	..	..	26.3	..	..
Plan 1976-1980	75.4	..	..	24.6	..	..

Sources: As for table 1.1.

from differences in national price levels, and in statistical coverage. Nevertheless, it is believed that the data adequately reflect over-all trends over time.

The table shows that in most countries the share of expenditure on food in relation to total family expenditures either stabilized or declined. Food consumption amounts on average to 30-40 per cent of the total. During 1970-1978, food expenditures were relatively low in the German Democratic Republic and relatively high in Poland. Differences in the consumption of food when the 1970 national family budgets are compared were substantially wider than in 1978. Countries where spending on food was relatively high in 1970 (for instance, Poland, and to a lesser extent, Hungary and the Soviet Union) spent considerably less in relative terms in 1978, and indeed approximated to the average for the whole region. Unweighted average expenditure on food declined from 35 per cent to 32 per cent of the total during 1970-1978. National expenditures on textiles, clothing and footwear varied within narrow limits: in most cases the initial (1970) share was maintained over the period. Only in the case of Hungary and Poland have significant changes taken place.

While the share of food and textiles, clothing and footwear together remained generally on the same level, expenditure patterns by category of family (workers, peasants, non-manual workers) differed a great deal within countries. Variations in food expenditures by category of family were wider in Hungary and Poland than in the German Democratic Republic in 1970, and this pattern of inter-country variation persisted up to 1978. In two of the six countries (Poland and the Soviet Union) workers' families spent more on food than peasant families in 1970. In the three countries for which

TABLE 5.7

Structure of families' expenditure

(*Percentage distribution, total expenditure = 100*)

A: Workers' families. B: Peasant families. C: Non-manual workers' families.

Period	Food			Textiles, clothing, footwear			Consumer durables			Maintenance of dwellings			Savings		
	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
Bulgaria											a				
1970	33.9	34.8	29.1	9.6	9.0	9.6	4.7	4.5	4.3	8.1	7.2	6.1	11.2	12.2	12.9
1976	31.8	36.0	29.1	8.9	7.1	9.2	4.4	4.0	4.1	5.7	5.8	5.7	14.3	12.3	12.8
1977	33.7	38.5	31.2	9.4	7.7	9.5	4.9	3.5	4.6	7.3	8.4	5.5	10.2	8.0	10.8
1978	32.5	37.1	29.7	9.6	8.2	9.6	4.1	3.8	4.0	6.1	6.8	5.7	10.1	8.0	10.3
Czechoslovakia															
1970	33.3	26.4	29.5	9.7	9.4	9.2	4.3	5.7	3.9	..	..	..	9.2	17.2	9.9
1976	29.0	27.1	26.3	10.1	11.5	10.2	5.0	6.7	5.2	..	..	..	10.4	14.4	10.8
1977	28.7	27.0	25.8	10.0	11.3	10.0	4.7	6.3	4.8	..	..	..	10.5	14.2	11.1
1978	27.4	26.5	25.1	9.6	11.1	9.7	5.0	6.6	4.9	..	..	..	10.3	13.6	10.7
German Democratic Republic	b										c	..	d	..	..
1970	27.1	28.2	..	12.3	12.7	..	16.5	16.5	..	4.5	3.0	..	6.1	..	..
1976	28.8	27.9	..	13.4	13.2	..	21.6	23.1	..	4.2	2.4	..	6.6	..	..
1977	28.1	26.9	..	13.3	13.1	..	21.6	22.5	..	4.1	2.2	..	7.7	..	..
1978	27.4	26.5	..	12.8	12.4	..	21.9	22.7	..	3.9	2.3	..	7.6	..	..
Hungary														e	
1970	33.8	32.8	27.7	13.9	11.0	14.2	7.7	6.7	8.9	10.4	8.5	9.5		5.6	
1976	30.4	28.5	25.6	11.8	9.7	11.1	8.2	7.4	9.6	10.7	8.6	12.5		5.7	
1977	30.6	28.2	26.4	11.2	9.7	11.6	8.4	7.3	8.8	10.4	8.2	11.9		6.6	
1978	28.9	27.0	24.8	13.4	8.9	10.8	9.9	6.7	9.0	11.2	7.8	11.3		7.2	
									A	B					
Poland															
1970	46.7	53.9	..	15.7	16.0	..	14.8					8.4		..	
1976	41.7	48.4	..	15.3	13.0	..	15.1					12.9		..	
1977	..	..	..	..	..	..	..					..		..	
1978	41.1	53.9	..	14.4	12.6	..	15.5					13.9		..	
Romania							f								
1978	45.1	63.1	..	19.0	14.2	..	11.0	5.7	..	13.6	10.3	..	..	..	
Soviet Union										c	g				
1970	35.7	40.4	..	15.5	15.7	..	5.8	4.9	..	2.8	1.8	..	4.6	10.6	..
1976	32.5	35.2	..	15.7	15.4	..	6.6	5.8	..	2.7	1.7	..	7.1	13.1	..
1977	32.4	34.7	..	15.6	15.8	..	6.8	5.9	..	2.7	1.6	..	6.8	12.3	..
1978	32.0	34.4	..	15.7	15.6	..	6.6	5.9	..	2.7	1.8	..	7.2	13.1	..

Sources: As for table 5.1.

[a] Including rent, cost of fuel and electricity and housing.

[b] Data include employees' and workers' families together.

[c] Rent, fuel and electricity only.

[d] Percentage share of savings to net money income (households of workers and employees).

[e] Per capita savings of the total population.

[f] Including beverages.

[g] Fuel and electricity only.

data were published, non-manual employees' families spent the smallest share of family income on food. This confirms other empirical findings, and can be viewed as a consequence of higher levels of urbanization rather than of a more differentiated scale of consumer preferences.

The maintenance of dwellings represented a more or less stable share of family budgets with the partial exceptions of Hungary and Poland. In Hungary, non-manual employees' families spent 2 percentage points more on dwellings in 1978 compared with 1970; there was a small decline in the case of agricultural employees.

Savings are normally not included in families' net budgets. But even in the shorter run, savings serve as a source of expenditure. From that point of view, the growth of savings does not show the real extent of postponed demand or of the unsatisfied expectations of buyers, since to some extent savings act as a reserve fund against current credit or other personal obligations. However, the trend growth of savings indicated by family budget data generally coincides with that of savings of the population as a whole.

Savings account for the biggest share of workers' family budgets in Bulgaria—some 12 per cent on average during 1970-1978. The corresponding share in the Soviet Union was by far the lowest (data relate to 1970). In 1978 the share of savings in workers' family budgets in Bulgaria and Czechoslovakia was about 3 points higher than in the German Democratic Republic or in Hungary.

The growth of savings can, to a certain extent, be explained by rising prices—notably in Hungary and Poland—particularly when they are accompanied by matching rises in incomes. Another factor may be disequilibrium between the money supply and the availability of consumer goods and services, which becomes more evident in times of rising consumer prices. There are no major differences in the savings patterns of non-manual employees as compared with the other two social groups. In Bulgaria, differences in the share of savings as between social groups diminished between 1970 and 1978, and with more minor exceptions, this is true for Czechoslovakia as well.

Social consumption has generally grown more rapidly than personal consumption in recent years. Social consumption accounts for more than one-fifth of NMP in the case of Bulgaria (see table 5.6). In Czechoslovakia, its share reached one-fifth in 1978, while in the other countries the share of social consumption—at one-tenth of NMP—is substantially smaller. The share of the social consumption fund is, of course, affected by differences in national social security and education systems.

The structure of the *social consumption fund* (table 5.8) remained almost unchanged during 1975-1978. Differences between countries are mainly determined by traditional allocation patterns, and also by differences due to variations in the coverage of national statistics. The share of pensions and social benefits is, moreover, affected by differences in the age structure of the population, by minor differences in the level of employment, and by employment patterns by sex. The share of pensions and social benefits is highest in the case of Hungary, where they accounted for 56-57 per cent of the total during 1975-1978. It is lowest in the German Democratic Republic and the Soviet Union. However these differences were counterbalanced by the higher share of social consumption in total consumption in the case of the German Democratic Republic, and also in Bulgaria. The share spent on education and culture was highest in the Soviet Union and Poland (27-28 per cent and 25-26 per cent respectively on average during the last four years). The health budget varied from one country to another, ranging from 15-25 per cent in 1978.

TABLE 5.8

The structure of the social consumption fund

(*Percentages*)

Country and period	*Pensions and social benefits*	*Education and culture* [a]	*Health*	*Other* [b]
Bulgaria				
1975	44.1	22.6	14.4	18.9
1976	44.0	22.6	14.8	18.6
1977	44.7	23.2	14.5	17.6
1978	44.4	23.1	14.9	17.6
Czechoslovakia				
1975	48.3	20.9	15.2	15.6
1976	48.8	20.0	15.0	16.2
1977	48.5	20.4	15.3	15.8
1978	48.6	20.7	15.5	15.2
German Democratic Republic				
1975	38.7	24.7	15.8	20.8
1976	37.3	24.5	16.1	21.9
1977	37.9	22.6	16.7	22.8
1978	36.9	22.7	17.1	23.3
Hungary				
1975	56.0	21.3	14.6	8.1
1976	57.4	20.7	13.9	8.0
1977	57.4	20.6	14.0	8.0
1978	57.0	21.0	14.0	8.0
Poland				
1975	39.8	27.0	26.9	6.3
1976	39.8	25.9	26.1	6.2
1977	41.2	24.5	25.2	9.1
1978	42.9	23.5	24.3	9.3
Soviet Union				
1975	37.3	27.9	14.3	15.6
1976	37.5	27.9	14.4	16.2
1977	37.2	27.4	14.5	15.8
1978	37.1	27.6	14.7	15.2

Source: CMEA Yearbook, 1979.

[a] Including student grants.

[b] Including expenditure for maintaining the housing stock.

Social consumption is financed mainly through the State central budget. There are also expenditures which

State budgetary expenditure on social consumption

(*Percentage of distributed net material product*)
(*NMP distributed = 100, at current prices*)

	Bulgaria	*Czechoslovakia*	*Hungary*	*Poland*	*Soviet Union*
1976	20.4	28.8	19.4	7.4	21.1
1977	21.2	29.9	17.9	7.4	21.1
1978	22.2	29.8	17.5	7.5	21.4

Sources: As for table 5.1.

Note: For coverage of social consumption, see previous text table.

are traditionally covered—wholly or in part—by trade unions and enterprises (for instance expenditure on recreation, kindergartens, maintenance of canteens, etc.). Social consumption financed by the State budget can also be affected by the trend of over-all economic development. The share of the social consumption fund in total budgetary expenditures has remained fairly constant throughout the region in recent years.

This indicates that such expenditure increased dynamically in absolute terms relative to NMP in nearly every country; as shown in the text table above, the growth of centralized budget grants exceeded that of distributed national income during the period between 1976 and 1978 in all countries for which data are available, except Hungary. For three countries the share of the social consumption fund in NMP is currently around 20 per cent; in Czechoslovakia, it attained almost 30 per cent. By contrast the 7.5 per cent share in Poland appears rather low, an outcome which is largely due, however, to differences in statistical coverage.

6. FOREIGN TRADE IN EASTERN EUROPE AND THE SOVIET UNION

(i) General features

In value terms, the trade of eastern Europe and the Soviet Union (eastern countries in the text that follows) continued to increase rapidly in 1979 (table 6.1). However, during the recent past annual growth rates have been unstable especially in respect of exports; the latter increased by slightly more than 15 per cent in 1977, by roughly half that rate (7.9 per cent) in 1978, but in 1979 they again expanded at almost the same rate as reported for 1977. Fluctuations in import growth rates were much less pronounced and their timing was different; imports expanded by slightly more than 8 per cent in 1977, by nearly 11 per cent in 1978 but by a somewhat slower rate of some 9 per cent in 1979.

Thus, eastern exports increased at a much faster rate than eastern imports in both 1977 and 1979, while in 1978 the opposite was the case. These shifts in relative export-import growth rates strongly affected the trade balances of eastern countries, deficits being reported for all countries during the whole period prior to 1979. The size of these deficits fluctuated a great deal; the total for all eastern countries combined exceeded $9 billion in 1975 but declined gradually to some $2 billion in 1977. It rose again to nearly $5 billion in 1978 but turned into a small surplus in 1979. A substantial proportion of these fluctuations was attributable to the revaluation, in terms of dollars, of the national currency units in which foreign trade is valued. Another major source of fluctuation in these balances was domestic economic policy changes which provoked shifts in Soviet surpluses vis-à-vis developing countries and socialist countries outside eastern Europe, and shifts in the eastern countries' deficits on east-west trade.

The biggest variations in the annual growth rates of trade were reported in Hungary, Romania and the Soviet Union. In the first two countries this very strongly reflected the development of domestic economic activity, whereas for the Soviet Union it resulted from fluctuations in export and import prices. Hungary regulated its commercial policies in relation to the size of its trade deficits; in 1977, both exports and imports grew rapidly and the deficit was small (some $0.7 billion). In 1978, however, exports almost stagnated while imports rose quickly, giving rise to a more than twofold increase in the deficit (to nearly $1.7 billion). This signalled rapid export expansion in 1979, and also cuts in imports, following which the deficit fell to a very low level ($600 million). Romania has followed expansionary policies in recent years, but imports were stimulated much more strongly than exports. Favourable trade balances in the earlier years of the period reviewed (slight surpluses were reported in both 1976 and 1977) subsequently permitted Romania to borrow abroad on a considerable scale in order to finance the modernization of domestic industries. Romanian exports and imports both expanded fast and at similar rates in 1977 (by some 15 per cent). In 1978, the export growth rate fell back while that of imports accelerated (the actual increases amounted to 6 and 17 per cent respectively). In 1979, both import and export growth rates accelerated fast but the former again outstripped the latter (20 as against 18 per cent, respectively). Romania reported a deficit of nearly $800 million in 1978 which increased to $1.1 billion in 1979. In the Soviet Union, export growth rates slackened sharply between 1977 and 1978 (from some 19 to 7 per cent) and that of imports increased considerably (from some 5 to 15 per cent), but the pattern was reversed in 1979 when exports grew by some 16 per cent and imports by approximately 9 per cent. The Soviet export surplus declined from some $4.2 billion in 1977 to some $1.6 billion in 1978, but rose to more than $5 billion in 1979.

In Bulgaria, Czechoslovakia and the German Democratic Republic a somewhat better balance between export and import growth rates was maintained than in the above three countries. In Bulgaria and Czechoslovakia, exports and imports grew quickly and at similar rates between 1977 and 1979; changes in trade balances were marginal, and the underlying deficits held at modest levels. In the German Democratic Republic, the export growth rate speeded up considerably between 1977 and 1978 (from some 6 to 10 per cent), while import growth slackened (from some 9 to 2 per cent) and the trade deficit fell sharply (from some $2.3 to $1.4 billion). This deficit was considered tolerable and was roughly maintained in 1979, when both exports and imports were allowed to increase rapidly and at accelerated rates (13 and 11 per cent respectively).

The primary objective of Polish policies during the recent past has been to reduce the country's deficit on foreign trade. Indeed high growth rates of exports were maintained over the whole period 1976-1979 (10 and 12 per cent annually) while imports expanded at roughly half these rates (by 5-6 per cent). The Polish deficit consequently declined progressively from some $2.9 billion in 1976 to $1.1 billion in 1979.

A great deal of the eastern countries' growth in foreign trade was due to variable but persistent price increases. Since information on price movements in 1979 is still scarce, the following comments are based on estimates covering only the first nine months of the year. During the recent past, the prices at which the trade of the eastern countries as a whole was conducted moved only moderately. They increased by some 5 per cent in 1977 for both exports and imports, decelerated to less than half that rate in 1978 but accelerated somewhat in 1979 (to approximately 3.3 per cent for exports and 5.2 per cent for imports). This implied only marginal changes in the terms of trade, which moved in favour of the eastern countries (mainly benefiting the Soviet Union) in 1977 and 1978, but against them in 1979.

Growth rates in the volume of the eastern countries' trade were considerably below those reported for values (table 6.2). During the recent past growth rates have varied between relatively low and relatively high. Fluc-

TABLE 6.1

Trade of individual east European countries and the Soviet Union

	Annual percentage change								*Trade balance in million US dollars*		
	Exports				*Imports*						
Country	*1977*	*1978*	*1979*	*Plan 1980*	*1977*	*1978*	*1979*	*Plan 1980*	*1977*	*1978*	*1979*
Bulgaria	15.8	10.7	12.4	7.5 [a]	11.5	11.5	0.6	7.5 [a]	−41	−106	−100*
Czechoslovakia.....	11.7	9.4	10.3	7.8*	12.9	7.7	11.0	6.6*	−832	−731	−900
German Democratic Republic	5.8	10.3	13.0	12.0 [a]	8.6	1.7	11.0	12.0 [a]	−2 307	−1 375	−1 200
Hungary	16.5	0.9	13.0	7.7*	16.2	12.6	−3.0	2.1*	−708	−1 693	−600
Poland	11.3	9.8	12.2	10.9	5.4	4.9	6.3	8.0	−2 352	−1 866	−1 100
Romania	14.4	5.6	18.0	14.8 [a]	15.1	16.5	20.1	14.8 [a]	3	−756	−1 100
Soviet Union	18.6	7.3	16.0 [b]	4.7 [a]	4.7	14.8	9.0 [b]	4.7 [a]	4 239	1 569	5 200
Total	15.1	7.9	14.4*	7.5 [a]*	8.1	10.8	9.1*	7.5 [a]*	−1 998	−4 958	200

Source: National statistics.

Note: The absolute figures in dollars are obtained by applying the official exchange rate used for statistical purposes, as quoted by the *UN Monthly Bulletin of Statistics* and the national sources. Percentage changes are derived from national sources and are based on data in national foreign trade accounting units.

[a] Turnover.

[b] Nine months.

tuations in growth rates were less pronounced in respect of exports than of imports indicating that the thrust of policies to redress trade balances was concentrated on imports. The export volume growth rate amounted to slightly more that 9 per cent in 1977; it slowed down a great deal in 1978 (5.3 per cent) but accelerated during January-September 1979 to rates above those reported for 1977. In contrast, import volume growth rates, which were modest in 1977 (3.4 per cent) accelerated sharply in 1978 (to 9 per cent) but fell back equally sharply during January-September 1979 (to some 3.6 per cent).

Policies affecting trade balances fell unevenly on the expansion of eastern countries' trade with different regions. The major problem was the deficits on the eastern countries' trade with the western industrial market economies. Changes in these deficits were linked with ups and downs in growth rates both of eastern countries' exports to and—to an even greater extent—of eastern imports from this region. Sharp fluctuations were also reported in the volume of eastern countries' trade with the developing countries. The growth of intra-CMEA trade varied slightly but remained the most dynamic geographical flow.

Information on eastern countries' trade by major commodity groups is even scarcer for 1979 than trade by regions. Available information is summarized in table 6.3. The picture is rather mixed and is blurred by uneven variations between the prices of individual product groups. Policy adjustments carried out in Poland and Hungary in 1979 affected imports of machinery and consumer goods in particular; these products were important components in export promotion.

Prospects for the growth of the eastern countries' trade in 1980 are uncertain. Judging by current plans, the expansion of trade will slow down considerably—from some 12 per cent in 1979 to maybe 7.5 per cent in 1980. Undoubtedly, this slowdown will mainly affect the volume growth of eastern exports rather than imports. This conclusion is based primarily on differences between export and import growth rates in 1979. The successful implementation of policies to adjust trade balances in 1979 will permit further borrowing in 1980, and credits in western markets are available. Moreover, a part of the improvement in trade balances in 1979 was due to stock depletions in eastern countries; these will need to be replenished in 1980, partly from imports.

Trade prospects for the eastern countries in 1980 are particularly uncertain when trade flows with individual geographical areas are taken into account. This is particularly so with regard to east-west trade. The political climate for the development of this trade is at present unfavourable. In addition, economic conditions in the western industrialized countries, do not indicate buoyant import demand, and the over-all economic climate could deteriorate further. This will undoubtedly have consequences for eastern exports. Although the deficit of eastern countries in their trade with industrial market economies fell considerably in 1979, further reductions are targeted in most cases for 1980. This will clearly affect the willingness of eastern countries to borrow in western capital markets and will ultimately reduce their capacity to import. Intra-CMEA trade may not completely absorb this shortfall in east-west trade, in part because of the expected slowdown in the growth of output and demand in the eastern countries.

(ii) Trade among the European CMEA countries

Since 1976, the volume of intra-CMEA trade has continued to increase fast and at fairly uniform rates (some 9 per cent per year). Since intra-CMEA trade prices are adjusted at the beginning of every year in relation to movements in average prices on the world market in the preceding five years, any price rise on the world market exerts upward pressure on intra-CMEA trade prices also. However, this system of price formation in intra-CMEA trade obviously results in differences in CMEA and world trade price changes in a given year; in some years, price changes in intra-CMEA trade were larger than changes in world prices, in others smaller. In the final result, following an 18 per cent rise in 1975 intended to take account of large price upheavals in world markets, the prices of intra-CMEA trade have since increased relatively moderately and at diminishing rates. The major element in these price adjustments was changes in the price of oil exported by the Soviet Union to the other CMEA member countries. According to estimates based on the formula retained for calculating price adjustments in intra-CMEA trade, the price of oil traded among CMEA countries gradually rose, between 1974 and 1978, from 30 per cent to 84 per cent of the current price paid for oil imported by the industrial market economies from OPEC countries. (However, this ratio may have declined to some 72 per cent in 1979.) Due to variations in price changes the value of intra-CMEA trade expanded unevenly in recent years but growth gradually decelerated from some 15 per cent in 1977 to 10 per cent during January-September 1979.

Intra-CMEA trade is dominated by Soviet exports to and imports from other partner countries. The position of the partner countries is strongly affected by the relative rates at which Soviet exports and imports grow; and by the balances in their trade with the Soviet Union. This position can change substantially from one year to another; the expansion of Soviet export values slackened from some 17 per cent in 1977 to 11 per cent in 1978 and fell further to 9.4 per cent during January-September 1979. The growth of Soviet import values accelerated from some 13 per cent in 1977 to more than 21 per cent in 1978 but then slowed down to 12.4 per cent during January-September 1979.

Balances on the Soviet Union's trade with other CMEA countries underwent substantial changes: the Soviet surplus reached $2.5 billion in 1977, declined to $0.7 billion in 1978 but rose again to $2.2 billion in 1979 (9 months adjusted on an annual basis). It should be noted however that the balances in dollar values were affected by the continued revaluation of the rouble against the dollar.

TABLE 6.2

Growth in the trade of the east European countries and the Soviet Union by major regions

(Percentage change over the same period of the previous year and surpluses in billion US dollars)

	Exports			*Imports*		
	1977	*1978*	*1979 estimate (9 months)*	*1977*	*1978*	*1979 estimate (9 months)*
Total trade						
Value	15.1	7.9	13.8	8.1	10.8	9.0
Prices	5.5	2.5	3.3	4.6	1.6	5.2
Volume	9.1	5.3	10.2	3.4	9.0	3.6
Terms of trade	0.9	0.9	−1.8	—	—	—
Surplus	—	—	0.2	2.0	5.0	—
of which:						
Intra-CMEA trade (Europe)						
Value	14.9	11.7	10.0			
Prices	5.4	3.0	1.0			
Volume	9.0	8.5	8.9			
Trade with industrial market economies						
Value (eastern sources)	10.0	5.2	23.0	1.3	8.5	10.2
Value (western sources)	10.7	14.0	30.0	0.7	18.0	17.0
Prices (western sources)	7.2	10.4	16.4	8.1	9.8	15.0
Volume	3.2	3.3	11.7	−6.8	7.5	1.8
Terms of trade	−0.8	0.6	1.2	—	—	—
Surplus (eastern sources)	—	—	—	6.7	8.8	3.8
Trade with developing countries						
Value	30.8	6.5	12.0	20.2	2.6	0.0
Prices	12.1	12.1	5.7	11.6	0.6	9.0
Volume	16.7	−5.0	6.0	7.7	2.0	−9.0
Terms of trade	0.5	11.4	−3.0	—	—	—
Surplus	3.5	4.4	2.8	—	—	—

Sources: Eastern sources as for table 6.1, western sources as explained in table 6.6.

Note: Calculations are made in the following way: (*a*) total trade: value and volume indices are taken from national statistics of east European countries and the Soviet Union. They have been weighted on the basis of individual countries' shares in the total trade of the region expressed in roubles; prices have been derived from the above value and volume indices; (*b*) intra-CMEA trade: value indices are taken from national statistics; prices are calculated on the basis of Soviet and Hungarian data which for certain years were slightly adjusted to eliminate discrepancies; volume indices are derived from the above value and price indices; total intra-CMEA exports and imports are not always identical because of accounting discrepancies, imports tending to be higher than indicated here; (*c*) trade with industrial market economies: value and price indices are calculated on the basis of UN data and volumes are derived as described in Part B of the *Economic Bulletin for Europe*, vol. 31, No. 1; (*d*) trade with developing countries: value indices are taken from national statistics, volumes and price indices are calculated as residuals; (*e*) regional balances do not always add up to the total because of discrepancies in intra-CMEA trade; balances on trade between eastern countries and Asian Socialist countries are not shown above.

TABLE 6.3

Trade of selected east European countries and the Soviet Union by major regions and commodity groups (January-September 1979)

(*Percentage change over the same period of 1978*)

	Bulgaria	*Czecho-slovakia*	*Hungary*	*Poland*	*Soviet Union*	*German Democratic Republic (12 months)*
Exports to						
CMEA countries	8.0	6.2	9.5	14.1	9.4	12.0
Developed countries	41.6	21.6	19.2	3.8	34.4	14.0
Developing countries		3.1	16.6	11.6	4.9	11.0
Total	14.7	9.1	13.4	10.8	15.6	13.0
Machinery and equipment	9.1	..	13.4	15.1	..	..
Raw materials and semi-finished products	41.6	..	20.0	8.4	..	..
Foodstuffs	7.9	..	11.8	4.2	..	..
Consumers goods	11.9	..	2.5	3.3	..	..
Imports from						
CMEA countries	13.3	8.1	2.8	7.2	12.4	..
Developed countries		12.3	0.5	−1.7	11.3	..
Developing countries	3.9	10.5	−17.3	43.5	−2.4	..
Total	11.4	8.1	−0.6	5.8	9.3	11.0
Machinery and equipment	3.8	..	2.5	−2.5	..	..
Raw-materials and semi-finished products	14.1	..	2.0	9.2	..	..
Foodstuffs	15.4	..	−15.5	23.1	..	..
Consumers goods	13.5	..	−4.7	11.0	..	..

Source: As for table 6.1.

Machinery and equipment were the principal products contributing to the growth of intra-CMEA trade. Trade in foodstuffs was also buoyant, there having been a great deal of complementarity in harvest variations within the region. Trade in consumer goods and intermediate products progressed. Fuels and energy continued to be the fastest expanding item in the value of Soviet exports to partner countries. As indicated earlier, this was largely due to the steady upward adjustment of oil prices. However the volume of Soviet fuel exports has recently shown small but steady increases. Shipments of gas continued to grow at high and at steadily rising rates, and the jointly constructed Orenburg gas pipeline has recently been completed. Soviet supplies of oil to partner countries continued to increase but at slow rates (see section 3). Since oil consumption in eastern Europe grew faster than Soviet shipments, the countries concerned were increasingly obliged to import oil from OPEC countries. Soviet exports of consumer goods have recently increased rapidly, as did Soviet deliveries of chemicals and timber. However, all major product groups but fuel contributed to the slackening of the growth of intra-CMEA trade in 1978, and to the acceleration in the expansion of the value of Soviet exports in 1979. Soviet imports from eastern countries continued to be dominated by machinery.

These trends were influenced by a number of other factors. The important role played by intra-CMEA trade in recent regional trade adjustments has already been discussed. In addition, the increasing dependence of eastern countries other than the Soviet Union on external supplies of oil aggravated their foreign currency shortage. This has increasingly obliged them to satisfy their demand for imported industrial materials from within the region.

The movement of the Soviet export surplus in its trade with other CMEA countries has also influenced the development of mutual exchanges. Increases in these surpluses in certain years reflected the grant of Soviet credits to its partner countries, while the decline in these surpluses in other years indicated repayments of some of these credits. The Soviet Union converted part of its rising surpluses into short-term or medium-term credits in order to help its CMEA partners to absorb price adjustments more easily. This was an important factor behind the rise in Soviet export surpluses up to 1978. There appears to have been a net repayment of credit in 1978, but in 1979 Soviet net crediting was resumed.

Expanding economic co-operation is a permanent feature of the CMEA countries' economies and one which contributes substantially to the rise in mutual trade. Joint construction of enterprises (amounting until now to a total value of some $12 billion) has been concentrated in the development of gas, iron and nickel ores, pulp, asbestos and ferrous metals. The construction stages (1973-1980) provided a strong impetus to exports of machinery, equipment and construction materials from eastern countries to the Soviet Union. With some of these enterprises now completed, the growth of Soviet deliveries of resultant products has accelerated. Specialization in production, based on mutual contracts, is increasingly contributing to intra-CMEA trade. The bulk is concentrated in machinery, where contractual deliveries rose from 10 per cent of mutual transactions in machinery in 1971 to over 40 per cent in 1979.

Preparations are being made to raise intra-regional co-operation during the 1980s to a much higher level than at present, both in terms of quantitative indicators and in terms of complexity. The "long-term target-oriented co-operation programmes" already adopted for energy (especially atomic energy), fuels, some raw materials, agriculture, the food industry, engineering, industrial consumer goods production, transport and communications aim at improving domestic supplies of the respective products and, by implication, at facilitating import substitution for goods purchased outside the CMEA area, and finally, at eliminating existing balance-of-payments difficulties. The implementation of the new programmes should lead to increasing self-sufficiency in the region: for energy, the self-sufficiency ratio is expected to rise from some 78 per cent at present to 90 per cent by 1990, and for iron ore and ferrous metals, from some 70 per cent to 100 per cent. Ferrous metal imports were an important contributor to the rise in the deficit of the eastern countries' east-west trade deficits during the past decade, and recent rising dependence on external supplies of energy materials has intensified the region's shortage of foreign currency.

The intended complex development of intra-regional co-operation will necessitate stronger emphasis than at present on *ex-ante* multilateral planning. This covers not only supplies and demand but also costs, prices, investments and the size of plant. Multilateral planning so far has been predominantly an *ex-post* factor, introduced to ensure the co-ordination of national plans, and referring almost exclusively to output. The extension of the joint planning principle to long-range planning was already established in 1976, but it now needs strengthening in order to cope with new objectives.

(iii) Trade with developing regions

The data concerning trade between the CMEA region and developing countries are calculated as residuals, and consequently indicate orders of magnitude only. Both values and volumes of eastern exports and imports grew fast in 1977 and both suffered a setback in 1978. During January-September 1979 the expansion of eastern export volumes seems to have recovered ground lost in the preceding year, while that of eastern imports declined substantially. In all three years export values grew faster than import values and the same was true for export volumes in 1977 and 1979.

Prices in trade between CMEA and developing countries moved unevenly from year to year and as between exports and imports. Eastern export prices increased fast both in 1977 and 1978 (by some 12 per cent) but moderated in 1979. Eastern import prices also increased fast in 1977 (by some 12 per cent), hardly at all in 1978 and more markedly in 1979. Thus, while the eastern terms of trade hardly changed in 1977, they improved a great deal in 1978 but deteriorated slightly during January-September 1979. The trade surplus of eastern countries continued to increase between 1975 and 1978, reaching $4.4 billion in the latter year, but a slight decline was reported in 1979. Part of these movements was due to changes in dollar exchange rates.

The Soviet Union continued to dominate trade between eastern and developing countries. It accounted for 66 per cent of eastern exports to, and for 59 per cent of eastern imports from, these countries in 1978. In value terms, Soviet exports shot up by 39 per cent in 1977; their expansion slackened to 8.1 per cent in both 1978 and in 1979 (January-September). This implied a large rise in volume terms in 1977 (above 20 per cent), a decline of a few percentage points in 1978 and perhaps some recovery in 1979. Soviet import values grew relatively slowly, with rates decelerating gradually from about 10 per cent in 1977 to less than 2 per cent in 1979 (January-September). In volume terms, Soviet imports may have increased slightly in both 1977 and 1978 but certainly declined in 1979. The Soviet export surplus has been on the increase ever since 1975, rising from slightly more than $100 million in the latter year to $4.6 billion in 1979 (9 months adjusted on an annual basis).

Movements of eastern countries' surplus on trade with developing areas (other than those attributable to dollar exchange rate changes) were affected by a number of factors. The economic climate was more favourable to expansion of eastern countries' exports to developing regions than vice versa. The relative growth of output in the developing countries stimulated a substantial rise in import demand. The contribution of the eastern countries to meeting this demand was considerable; the rise in the volume of their exports to developing regions amounted to nearly 28 per cent during the 1976-1979 period taken as a whole. Credit granted by the eastern countries to developing areas did not keep pace with the rise in eastern exports, but it continued to grow.

Annual commitment of credits by the eastern countries may have risen to nearly $4 billion in 1979 (for earlier years see table 6.4). However, disbursements took place at a much slower pace than this, and repayment of credits contracted earlier accelerated. Thus, net long-term lending by eastern countries, which reached the record level of nearly $1 billion in 1973, gradually declined to roughly half that sum by 1977, though it may have increased substantially in the subsequent period. The total disbursed public debt owing by developing countries to the eastern region amounted to some $10 billion in 1978 ($5 billion in 1971), and certainly rose further in 1979. Developing countries may also have financed part of their rising imports from eastern countries by drawings on foreign currency earned elsewhere.

The relatively slow pace in eastern export volume growth to developing countries over the last two years (data currently available imply a decline in 1978 and recovery of the ground lost in 1979) can be explained primarily by over-rapid growth in the preceding two years (almost 27 per cent). These rates could not be repeated in the short run due to difficulties in the developing countries' absorption capacity, and also to eastern supply constraints.

The expansion of eastern countries' imports from developing areas was slow. Developing countries' share in eastern markets has declined since 1974, the volume of eastern imports from developing countries stagnating during 1977-1979 as a whole. The sluggish performance of these flows contrasted sharply with relatively buoyant economic activity in the eastern countries.

Developing countries have apparently diverted some of their potential exports towards the industrialized countries, with the deliberate purpose of increasing convertible currency earnings. As a result, the volume of their exports to the industrial market economies has increased by some 15 per cent during the last three years. The small share of manufactured products in exports of developing countries to eastern countries (about 12 per cent of total

TABLE 6.4

Credits of east European countries and the Soviet Union to developing countries [a]

(*Equivalent in million US dollars*)

Country	*1971*	*1972*	*1973*	*1974*	*1975*	*1976*	*1977 (estimate)*
				Commitments			
Bulgaria	55	40	43	117	17	8	..
Czechoslovakia	14	100	303	108	168	1 064	57
German Democratic Republic	25	23	..	46	277	105	77
Hungary	42	45	148	110	151	20	103
Poland	65	100	27	107	54	52	100
Romania	141	385	36	752	465	261	275
Soviet Union	677	957	1 230	1 260	1 642	1 208	2 922
Total	1 019	1 650	2 007	2 500	2 774	2 718	3 534
			Net long-term capital flows to developing countries				
Total	695	770	955	865	640	555	465

Source: UNCTAD, TD/B/C.3/158, 14 May 1979.

[a] Excluding Cuba and Viet Nam.

exports in recent years) probably provided an insufficient incentive to developing countries to promote these exports. Finally, developing countries used part of the credits obtained from the CMEA area to finance their debt service liabilities with these countries, which reduced pressure to raise exports.

The capacity of eastern countries to expand their imports from developing areas was also adversely affected by the rise in oil prices, and by increased eastern dependence on oil supplies from OPEC countries. This limited their ability to increase purchases of other products from other developing countries. It also seems that eastern purchases of industrial materials from the developing countries have tended to decline. Sophisticated industrial materials now account for a bigger share of eastern total demand for these products, and they are, in many cases, only available in industrialized countries. Differences between the growth of eastern exports and imports from developing countries were further affected by the current stage reached in economic co-operation. The value of projects under construction in developing countries with the help of eastern countries has exceeded the value of projects completed there, and developing countries' demand for capital goods imports from the eastern countries has tended to exceed the increment in newly created capacities.

Despite these factors, economic co-operation between the two regions has been reported as expanding, and the number of developing countries seeking to expand trade with CMEA countries has increased. The bulk of co-operation between the two trading regions is still carried out on a bilateral basis, involving all CMEA countries and more than 80 developing countries. Eastern exports of capital goods and technical assistance for the setting up of specific capacities in developing countries are mainly financed by credits which are repaid in the form of resultant products from these capacities. In recent years, a substantial rise in tripartite co-operation on specific projects has been observed, involving CMEA countries, industrial market economies and developing countries as partners in the construction of joint projects. To assist this co-operation, eastern countries have established an increasing number of companies in the developing countries—mainly in the form of joint ventures involving direct investment. These companies at present number about 200 with roughly $4 billion of fixed assets.[131] Some 24 per cent of these companies (with fixed assets of $200 million) are engaged in manufacturing, 28 per cent (with fixed assets of $3.6 billion) in the extraction and processing of raw materials, 18 per cent in marketing and 9 per cent in both transportation and technical services. The principal aim of such joint ventures is to stimulate resource development projects whereby industrial technology is exchanged for raw materials.

Certain improvements have been introduced in respect of commercial policy instruments. Existing trade and payments agreements are renegotiated on a continuous basis, and they increasingly include improvements in payment mechanisms and occasionally incorporate convertibility clauses for the settlement of balances. In a number of eastern countries, preferential treatment of imports from developing countries has been introduced; for instance, Soviet imports from developing countries based on such preferences increased from $1.2 billion in 1975 to $1.7 billion in 1977 and may have been close to $2 billion in 1979. This represented some 20 per cent of all Soviet imports from developing countries in 1975 and perhaps exceeded 26 per cent in 1979.

At present new efforts are being made both to exploit existing possibilities for co-operation and to create new ones, especially in the domain of trading preferences, payments arrangements, co-operation in finding markets for manufactures and semi-manufactures imported from developing countries by the eastern countries, intensifying joint ventures, accelerating financial and technical assistance, promoting multilateral co-operation and the like. Some countries of the eastern region have recently laid down guidelines for global ten-year programmes of co-operation with developing countries. These programmes provide for the comprehensive development of co-operation in industry, science, technology, trade and other areas. The principal of "comprehensiveness" embraces the supply of complete projects, including geological research, pre-investment and feasibility studies, design of projects, supply of capital goods, construction, commissioning of the plant and hand-over in running order, and the import of goods produced by these projects. This is expected to provide a strong impetus to exports of developing countries to CMEA countries.

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[131] Carl H. McMillan: "Growth of external investments by the Comecon countries", *The World Economy*, vol. 2, No. 3 (September 1979).

(iv) East-west trade [132]

The *trends* of eastern exports to and eastern imports from western industrialized countries have varied a great deal in the recent past. The growth of eastern export volumes proceeded at a relatively slow rate in 1977 and 1978 (some 3 per cent) but accelerated sharply in 1979 (to perhaps 12 per cent during January-September). This implies falls in eastern countries' share in western markets in 1977 and 1978 and some increase in 1979. In contrast, eastern import volumes declined substantially in 1977 (by nearly 7 per cent), recovered in 1978 at about the same rate and grew only slightly during January-September 1979. This implies losses in western countries' share of eastern markets.

Prices in east-west trade accelerated since the beginning of 1977. Import and export prices moved up at similar rates in 1977 and 1978 and the terms of trade hardly changed. However, in 1979 a tendency for the prices of eastern exports to move up somewhat faster than the prices of goods flowing in the opposite direction became noticeable, and the eastern terms of trade improved largely reflecting upward adjustments to the price of Soviet oil exports.

In value terms (according to western statistics) eastern exports grew fast and eastern imports hardly at all in 1977 (by nearly 11 and 1 per cent respectively). In 1978, the expansion of both accelerated substantially (to 14 and 18 per cent respectively). During January-September 1979, eastern export growth more than doubled while that of imports levelled off (at growth rates of 30 and 17 per cent respectively). As discussed later, this strongly reflected eastern policy with regard to trade deficits; these fell in 1977, were permitted to rise in 1978 but were again reduced in 1979.

Most individual eastern countries conformed to this general pattern of expansion although large differences were reported in their respective growth rates (table 6.5). Very high export value growth rates were reported in 1979 (January-September) for the Soviet Union, Czechoslovakia, Hungary, Romania and especially Bulgaria. In each case growth was a great deal faster than reported in 1977 or 1978. In some cases, and especially in that of the Soviet Union, the acceleration was due in a large measure to price increases; with the exception of Romania, imports into all these countries from western countries increased in 1979 (January-September) at rates roughly half or less of those reported for exports. In comparison with 1978, this performance represented a slight change for the Soviet Union and Czechoslovakia, a sharp slowdown for Bulgaria and Hungary and a substantial acceleration for Romania. This in turn implies a substantial increase in export volumes in 1979 for all these countries, and—perhaps with the exception of Romania—hardly any increase in import volumes.

Poland differed from the above group of countries only in the matter of degree: its exports increased relatively moderately (by 14 per cent) in the first nine months of 1979 and imports grew even more slowly (by 6 per cent), implying a similar rate as in 1978 for exports but a much slower rate for imports. In volume terms, in 1979 Polish exports hardly increased but imports appear to have declined substantially.

The performance of the German Democratic Republic differed widely from that of the other eastern countries; its export values continued to grow quite fast and even accelerated in 1979, but its export volumes probably rose by very little. In contrast, its import values and volumes rose quite fast in both 1978 and 1979, exceeding export growth rates in both years.

On the western side (table 6.6) the value of imports from the eastern countries rose considerably in 1979 (January-September) in the following countries: the Federal Republic of Germany, Italy, France, United Kingdom, Finland, Japan, Sweden, Netherlands, Denmark, Spain, Turkey, Canada and Ireland. The growth of imports into all of these countries accelerated considerably in 1979, and also during 1978 in certain countries. For 1979, and in some cases also for 1978, these movements indicate considerable increases in import volumes. Export values rose in 1979 (January-September) at considerably slower rates than imports for most of the countries listed above, and in some of them expansion slowed down a great deal.

Imports by the United States, after shooting up sharply in 1978, rose moderately in value but not in volume in 1979. United States exports to the eastern area expanded rapidly in 1978 and rose quite swiftly again in 1979, largely as a result of increased deliveries of grain.

Developments were affected by a number of factors, but the eastern countries' policies to improve their east-west trade balances were the dominant influence. Their main feature was to promote exports and to save on imports. Some imports were subjected to straightforward quantitative restrictions. The shortage of foreign currency available for purchases in western countries by eastern countries other than the Soviet Union grew more acute in recent years. The dependence of eastern countries on oil supplies from outside the CMEA area increased; this oil is highly priced and settlements are made in dollars. The eastern countries were, moreover, increasingly obliged to use export earnings to finance their debt obligations to western countries. In contrast, the rise in oil prices enhanced the import capacity of the Soviet Union and further eased its debt servicing obligations. The combined effects of these factors on the eastern countries' aggregate imports are well illustrated by the continuous post-1976 decline in the share of western exports on eastern markets to which attention was drawn above. This was to some extent a normal development given the considerable increase in these shares in preceding years, and the consequent rise in eastern trade deficits.

Apart from stimulative policies at home, the growth of eastern exports to western markets, and especially the acceleration in 1979, were helped also by a rapid rise in western import demand, which rose in volume terms by 5 per cent in both 1977 and 1978 and by nearly 8 per cent in 1979.

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[132] The analysis in this section is based on western data where the statistics are more complete than those provided by the statistics of eastern countries.

TABLE 6.5

Trade of the industrial market economies with individual east European countries and the Soviet Union

Country	*Western countries' imports, c.i.f.*					*Western countries' exports, f.o.b.*					*Western trade balance*		
	Value (million US dollars) 1978	*Percentage share of country's total exports 1978*	*Percentage change over the same period of the preceding year*			*Value (million US dollars) 1978*	*Percentage share of country's total imports 1978*	*Percentage change over the same period of the preceding year*			*Exports minus imports[c] (million US dollars)*		
			1977	*1978*	*Jan.-Sep. 1979*			*1977*	*1978*	*Jan.-Sept. 1979*	*1977*	*1978*	*Jan.-Sep. 1979*
Soviet Union	15 329	31	14	14	36	16 684	33	0	16	18	1 790	2 278	329
Poland	4 659	30	9	12	14	5 738	43	−8	11	6	1 241	1 324	702
German Democratic Republic[a]	3 563	23	11	13	19	3 990	29	3	22	26	277	590	617
German Democratic Republic[b]	1 614	11	12	11	13	1 730	12	−6	23	51	47	213	544
Czechoslovakia	2 532	22	10	14	27	2 568	24	−1	13	14	167	173	−140
Hungary	2 156	25	22	13	26	3 105	46	27	29	2	610	1 062	465
Romania	2 549	31	−3	21	38	3 086	42	14	29	35	410	684	578
Bulgaria	672	9	8	11	54	1 148	15	−6	21	12	382	517	244
Total[a]	31 460	27	11	14	30	36 319	33	1	18	17	4 877	6 628	2 795
Total[b]	29 511	26	12	14	30	34 059	31	1	17	17	4 647	6 251	2 722
			of which: *Trade of western Europe with east European countries and the Soviet Union*										
Soviet Union	13 279	27	14	13	37	11 432	23	13	9	19	−562	−1 122	−2 604
Poland	4 063	26	10	10	16	4 595	34	−8	7	11	800	740	301
German Democratic Republic[a]	3 499	23	11	12	19	3 740	27	5	18	19	207	399	276
German Democratic Republic[b]	1 550	10	12	10	13	1 480	11	−3	14	36	−23	22	202
Czechoslovakia	2 371	21	10	13	29	2 421	23	2	13	9	161	176	−216
Hungary	2 045	24	23	12	25	2 946	44	26	29	3	549	1 007	473
Romania	2 089	26	−5	16	41	2 502	34	11	34	36	169	529	418
Bulgaria	630	8	10	12	54	1 040	14	−4	20	13	338	447	210
Total[a]	27 976	24	12	13	31	28 676	26	7	14	17	1 662	2 176	−1 142
Total[b]	26 028	23	12	13	31	26 416	24	7	14	17	1 432	1 799	−1 216

Sources: As for table 6.6.

[a] Including trade with the Federal Republic of Germany.

[b] Excluding trade with the Federal Republic of Germany.

[c] Exports f.o.b. minus imports f.o.b. See note b in table 6.6.

TABLE 6.6

Trade of individual industrial market economies with eastern Europe and the Soviet Union

Country	*Imports c.i.f.*					*Exports f.o.b.*					*Trade balances*		
	Value (million US dollars) 1978	*Percentage share of country's total imports 1978*	*Percentage change over the same period of the preceding year*			*Value (million US dollars) 1978*	*Percentage share of country's total exports 1978*	*Percentage change over the same period of the preceding year*			*Exports minus imports [b] (million US dollars)*		
			1977	*1978*	*Jan.-Sep. 1979*			*1977*	*1978*	*Jan.-Sep. 1979*	*1977*	*1978*	*Jan.-Sep. 1979*
Germany, Federal Republic of [a]	5 620	5	11	26	40	7 715	5	6	16	14	2 327	2 285	1 011
Italy	2 927	5	6	13	32	2 409	4	16	5	15	−153	−342	−673
Yugoslavia	2 871	29	26	6	19	2 379	42	1	16	14	−437	−255	−411
France	2 531	3	11	14	24	2 916	4	2	5	47	663	478	789
United Kingdom	2 272	3	16	5	28	1 873	3	23	29	12	−584	−262	−445
Finland	1 701	22	11	−5	41	1 750	20	14	2	1	32	160	−435
Austria	1 400	9	14	12	21	1 665	14	10	18	16	214	318	174
Sweden	1 082	5	0	−5	60	982	5	−8	4	21	−116	−25	−247
Netherlands	1 211	2	11	16	51	940	2	7	15	26	−171	−209	−359
Belgium	824	2	22	15	14	850	2	−4	12	26	77	66	97
Denmark	674	5	4	14	28	334	3	2	17	33	−275	−304	−297
Switzerland	838	4	20	40	16	1 060	5	11	21	0	298	246	40
Spain	378	2	−20	10	39	354	3	−6	24	44	−32	7	18
Greece	652	9	−5	69	−9	384	12	16	15	12	−10	−198	−55
Norway	319	3	15	−19	6	319	3	0	16	−27	−107	9	−108
Turkey	391	9	7	14	97	323	14	4	87	−1	−135	−26	−184
Ireland	133	2	30	11	51	38	1	46	30	78	−85	−89	−87
Iceland	70	10	15	−7	39	50	8	51	−20	25	−6	−13	−23
Portugal	134	3	1	−19	1	75	3	−3	−7	74	−70	−47	−19
Total western Europe	26 028	4	12	13	31	26 416	5	7	14	17	1 430	1 799	−1 214
United States	1 603	1	5	64	15	3 674	3	−27	45	24	1 626	2 168	2 547
Canada	208	0	−4	10	25	773	2	−31	42	3	362	571	359
Japan	1 672	2	19	3	27	3 197	3	−5	20	9	1 225	1 713	1 031
Sub-total	3 483	1	12	25	22	7 644	3	−18	33	16	3 213	4 452	3 937
GRAND TOTAL	29 511	3	12	14	30	34 060	4	1	17	17	4 643	6 251	2 723

Sources: United Nations trade data; OECD, *Statistics of Foreign Trade*, Series A, Paris; IMF, *International Financial Statistics*, Washington, D.C.; National statistics.

[a] Excluding trade with the German Democratic Republic.

[b] Exports f.o.b. minus imports f.o.b. The latter have been adjusted according to data taken from IMF, *International Financial Statistics* for each country.

With regard to western trade protection policies, two contrary tendencies became apparent. On the one hand, "non-classical" types of protectionism (voluntary export restraints, anti-dumping procedures, orderly marketing arrangements, trigger price mechanism and the like) were reported as strengthening, especially against labour intensive imports such as steel, textiles, clothing, footwear, ships, electric consumer goods, certain electronics, certain chemicals and food products. On the other hand, the "classical" protectionism (quantitative restriction, surcharges on imports and financial levels) continued to be dismantled. Products imported from the eastern countries figuring in the list of liberalized products imported from eastern countries towards the end of 1979 totalled some 700 complete and 104 partial headings out of a total of 1,012 headings in the Common Customs Tariff.

East-west economic co-operation continued to boost east-west trade. It plays a positive role in most circumstances—acting as a neutralizer when adverse trends prevail in east-west trade (including a rise in protectionism) and as an accelerator in the opposite situation. Economic co-operation may have accounted for some 20 per cent of east-west trade in 1979, probably a few percentage points more than in the preceding year. Its contribution is estimated to be about the same with regard to trade between the Soviet Union and western countries, somewhat higher in the case of Romania, and somewhat lower in the case of the trade of other eastern countries. A new feature is that co-operation is an increasingly important element in eastern exports to the west, though in absolute terms it amounts to less than the opposite flow. This reflects a new stage in the implementation of co-operation projects financed by western credits, since credit repayments in the form of deliveries of products resulting from these projects are now growing in importance. Such projects constitute the bulk of east-west economic co-operation.

Eastern exports have also been encouraged by the establishment of eastern companies[133] in western industrialized countries (some 360 by 1978)—owned wholly or partly by eastern enterprises or banks. The fixed assets of these companies amount at present to some $500 million. Some 70 per cent of them are specialized in marketing. This high proportion is explained by changes in the structure of eastern exports; as the share of manufactured products increases in total exports, a need arises for sophisticated marketing which can only be filled by specialized companies. Within the total, 22 companies provide financial services; the size of their fixed assets is relatively small ($23 million) but their total assets amount to roughly $9.2 billion (of which 78 per cent is owned by Soviet companies).

The combined effects of the developments summarized above on eastern exports were favourable in 1979. Losses of eastern countries' shares of western markets reported in 1977 and 1978 were even made good in 1979. This experience amply illustrates that, whatever policy-determined obstacles to trade exist, they are quickly overcome when the underlying demand for imports is strong.

Unless protectionism increases to any great degree in western countries, the contribution of east-west economic co-operation to eastern exports will intensify in the years to come, as the remaining co-operation projects are completed. OECD estimates that by the end of 1980 this contribution could total more than 30 per cent of eastern exports.[134] Soviet earnings on this account may have amounted to $1.5 billion in 1978, but may reach $2 billion in 1980 and up to $4 billion in 1985. In the early 1980s, Soviet receipts may outpace Soviet expenditures on this account.

The negotiation of new co-operation projects has slackened recently, and this will affect both western exports in the years to come and eastern exports in a somewhat more distant future. This sharp deceleration is largely due to the slack activity prevailing in the western economies, which gave rise to excess capacities in sectors competing directly with the products arising from co-operation agreements (basic chemicals, steel, copper and wood products). Western producers concerned have already pressed in some cases for the activation of procedures designed to eliminate market disruption. As for inter-government arrangements, 270 long-term agreements are in force (90 trade agreements, 161 economic, industrial and technical co-operation agreements, 14 mixed), but only 13 of these were signed between September 1978 and November 1979 (6 on trade and 2 on co-operation between small- and medium-sized enterprises).

The east-west *current account balance* continued to be dominated by surpluses accumulated by western countries (table 6.7). However, in the recent past the size of these surpluses has tended to decline—from a record level of nearly $10 billion in 1975 to less than $6 billion in 1979 (9 months expressed as an annual rate). This resulted from the interaction of two opposing trends: on one hand, the western surplus on merchandise trade declined from the $9.2 billion recorded in 1975 to an annual rate of less than $4 billion during the first nine months of 1979. This more than offset the rising western surplus on services, which increased sharply from less than $1 billion in 1975 to nearly three times as much in 1979. The commercial policies pursued by the eastern countries were in fact concentrated on the adjustment of merchandise trade balances, the balances on services being much less responsive to policy directives.

The $3.7 billion western surplus on merchandise trade in 1979 compares with some $6.6 billion in 1978. All eastern countries but the German Democratic Republic and Romania contributed to this decline. A remarkable feature was a rising Soviet surplus in its trade with west European countries, the bulk of its deficit in over-all east-west trade being due to imports of cereals. On the western side, the contribution of individual countries to recent shifts in trade balances varied widely. The surpluses of the Federal Republic of Germany, Canada and Japan were very markedly smaller than in previous years, while those of the United States and France attained record levels. The deficits of Italy, Yugoslavia, United Kingdom, Finland and some other countries increased. In 1979, the United States had the largest surplus with the eastern region, followed by Japan, the Federal Republic of Germany and France. Much of the increase in the United States' surplus was attributable to shipments of cereals to the Soviet Union, which speeded up during the second half of 1979. Declines in the surpluses of the

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[133] Carl H. McMillan: "Growth of external investments in the Comecon countries", *The World Economy*, vol. 2, No. 3 (September 1979).

[134] *International Herald Tribune*, 19-20 January 1980.

TABLE 6.7

Estimated balance of payments of the industrial market economies with eastern Europe and the Soviet Union

(Million US dollars)

	Current Account								
			Net services						
Period	*Total (1-10)*	*Trade balance f.o.b.-f.o.b. (1-2)*	*Total (3-8)*	*Transport and insurance (3-4)*	*Travel (5)*	*Income (6-8)*	*Transfers (9-10)*	*Capital multilateral settlements, net errors and omissions (11-19)*
				A. *Excluding Japan*				
1975	8 807	8 255	870	25	−450	1 295	−318	−8 807
1976	6 277	5 827	1 150	−50	−450	1 650	−700	−6 277
1977	4 407	3 652	1 560	−70	−470	2 100	−805	−4 407
1978	6 117	4 937	2 000	−80	−520	2 600	−820	−6 117
1979	3 879	2 169	2 560	−90	−550	3 200	−850	−3 879
1975-1979 ..	29 487	24 840	8 140	−265	−2 440	10 845	−3 493	−30 801
				B. *Including Japan*				
1975	9 943	9 286	975	25	−450	1 400	−318	−9 943
1976	8 017	7 417	1 300	−50	−450	1 800	−700	−8 017
1977	5 932	4 877	1 860	−70	−470	2 400	−805	−5 932
1978	8 108	6 628	2 300	−80	−520	2 900	−820	−8 108
1979	5 682	3 732	2 800	−90	−550	3 500	−850	−5 682
1975-1979 ..	37 742	31 940	9 295	−265	−2 440	12 000	−3 493	−38 760

Sources: Estimates for industrial market economies other than Japan are based on IMF, *Balance of Payments Yearbooks*, Statistical Office of the European Community—*Eurostat Balance of Payments*, BIS, *Forty-Eighth Annual Report*, Basel, 12 June 1978, p. 85 (which gives estimates for net interest payments of about $2 billion in 1977) direct communications and press reports. Estimates for Japan are made by the ECE secretariat.

Notes: Numbers in parenthesis under column headings are the IMF item numbers. Data for 1979 represent nine months adjusted on an annual basis. Eastern statistics show larger trade surpluses for western countries (see table 2) than indicated in this table. This is the problem of the so-called "mirror statistics". The discrepancy arises from differences in coverage and timing, different treatment of re-exports, under-invoicing, time lags between deliveries and invoicing, and from valuations of eastern countries exchange rates.

Federal Republic of Germany and Japan were to a certain extent related to the completion of large investment projects in the eastern countries based on compensation agreements. The rising French surplus was related to a new round of deliveries based on recent grants of credit. The increasing Italian deficit was due partly to eastern repayments in kind made of credits granted to them earlier in connexion with co-operation deals.

The western surplus on the service account reached a record level of some $2.8 billion in 1979. The basic factor underlying this steadily rising western surplus was western factor income. The rise in this item is even accelerating, reflecting increased lending to the eastern countries. On the transport and travel accounts, western countries continued to record slowly growing deficits. Some 40 per cent of the western surplus on services in 1979 was due to the Polish deficit, which increased gradually from some $400 million in 1975 to perhaps over $1 billion in 1979; almost all of this item consisted of net interest payments arising from the substantial rise in total Polish foreign debt. The other items on the service account roughly netted out. A further 18 per cent was accounted for by the Hungarian deficit, which increased from some $250 million in 1975 to perhaps more than $500 million in 1979. The deficit of the German Democratic Republic may have been close to that reported for Hungary, while the deficits of Czechoslovakia and Bulgaria must have been somewhat lower. Although Soviet interest payments were the largest in the region, they were offset by receipts from transport and some other items; the Soviet Union may have had a small surplus in its service account.

Taking into account transfers, which grew steadily and accrued mostly to Poland and to the German Democratic Republic, it appears that the deficits on east-west current accounts were larger than deficits in their east-west merchandise trade in the majority of eastern countries. In 1979 the current account deficit may have amounted to $1.5 billion in Poland (against a deficit of approximately $1 billion on merchandise trade); to $1 billion in Hungary (against $600 million); and to $1.3 billion in the German Democratic Republic (against $800 million). In Czechoslovakia, the surplus on merchandise trade was somewhat smaller than its deficit in services, and in the Soviet Union the two balances were about equal.

The Soviet approach to the *financing of deficits* was distinctly different from those of the other eastern countries. The Soviet Union continued to sell gold on a large scale, to draw on semi-official and official credits and to benefit from exports to developing countries for which payment was made in convertible currency. Gold sales amounted to 450 tons in both 1977 and 1978 (worth some $3 billion in the latter year). Sporadic sales were reported in 1979 and, taking account of rapid increases in the gold price, they may have amounted to $4 billion. Undisbursed western credits (official and semi-official) for investment purposes in the Soviet Union amounted to some $4 billion at the end of 1977 of which a substantial proportion was drawn in 1978 and 1979. It is estimated that official and semi-official credits financed nearly 60 per cent of Soviet deficits in recent years. These credits are more advantageous than those extended by commercial banks because their rates of interest are lower and

TABLE 6.8

External position in domestic and foreign currency of banks in Group of Ten countries and Switzerland and the foreign branches of United States' banks in the Caribbean area and the Far East vis-à-vis eastern Europe and the Soviet Union

(Million US dollars—data for end of given period)

	1977			*1978*			*1979 June*		
Country	*Liabilities*	*Assets*	*Net position*	*Liabilities*	*Assets*	*Net position*	*Liabilities*	*Assets*	*Net position*
Bulgaria	445	2 345	1 900	492	3 174	2 682	602	3 264	2 662
Czechoslovakia	444	1 259	815	629	1 976	1 347	792	2 532	1 740
German Democratic Republic	707	4 145	3 438	1 195	6 193	4 998	1 402	6 449	5 047
Hungary	872	4 219	3 347	899	6 449	5 550	489	6 361	5 872
Poland	384	6 791	6 407	808	11 723	10 915	807	12 712	11 905
Romania	195	1 186	991	222	2 543	2 321	185	3 221	3 036
Soviet Union	4 222	10 554	6 332	5 852	12 761	6 909	5 192	11 974	6 782
Residual [a]	455	2 407	1 952	506	2 723	2 217	394	2 925	2 531
Total	7 724	32 906	25 182	10 603	47 542	36 939	9 863	49 438	39 575

Source: BIS, *Annual Reports* 1975-1979 and BIS, *Press Reports* for 1979.

Note: The ten countries are Belgium-Luxembourg, France, Federal Republic of Germany, Italy, the Netherlands, Sweden, the United Kingdom, Canada, Japan and the United States of America.

[a] Not distributed by countries. Almost certainly the bulk of the residual went to the Soviet Union, Poland and the German Democratic Republic.

fixed (7.5 per cent); for other credits, interest rates are higher and are based on floating market rates (8.5 per cent in 1978 and some 12 per cent in 1979 for dollar loans). Moreover, official credits are of a generally longer maturity, and are often associated with official promotion of expanded commercial ties.

The bulk of the current account deficits of the other eastern countries were financed by borrowing on western capital markets and, to a smaller extent, by credits extended by western governments and direct exporters. The net position of western banks vis-à-vis the eastern countries (including the Soviet Union), which is the main indicator of the net borrowing of eastern countries in the western capital market, reached almost $40 billion by June 1979 (table 6.8). In 1979, the net position increased by some $5 billion (six months total at an annual rate)—some $12 billion in 1978 but nearly $4 billion in 1977.

The position of individual eastern countries in respect of their debt to western capital markets differed a great deal. The Soviet Union has been almost wholly absent from this market since 1975. The absolute level of its debt changed only marginally (around $8 billion) but it declined in proportion to the eastern total from some 37 per cent in 1975 to about 21 per cent in 1979. Poland continued to be the largest recipient of funds, accounting for approximately $12 billion in June 1979—about 30 per cent of the total. Hungary, followed by the German Democratic Republic and Romania were ranked next in order, accounting for about 15, 13 and 8 per cent respectively. Borrowing by Hungary and the German Democratic Republic rose fast in 1978 but slowed down sharply in 1979, while Romanian borrowing continued to increase rapidly. The gross borrowing of the eastern countries was a great deal larger than their net borrowing because a substantial proportion of their debt is short-term, which necessitates a considerable amount of refinancing. Polish gross borrowing, for instance, amounted to some $5 billion in 1979 and is expected to reach $6.5 to $7 billion in 1980. This of course raises the cost of debt service.

The fact that the bulk of the eastern countries' deficit on east-west trade was financed by credit automatically led to rises in their *debt* to western countries. This was estimated at $43 billion in 1977 and at some $51 billion in 1978 (including the debt of CMEA banks). It may have risen to some $57 billion in 1979. Roughly $42 billion of this debt is due to western banks and the remaining $15 billion to official or semi-official creditors. Precise data on the distribution of this total between individual eastern countries are not available. Recent estimates indicate that the Polish debt may have amounted to slightly more than $17 billion and the Soviet debt to somewhat more than that. With the help of data published in table 6.8, the residual may be distributed as follows: Hungary—nearly $7 billion; the German Democratic Republic—some $6 billion; Romania—close to $4 billion; Bulgaria—around $3 billion; and Czechoslovakia—around $2 billion.

The *burden of debt* is relatively small in terms of the national output of the eastern countries (4 to 5 per cent in 1979) but quite substantial in terms of their receipts of convertible currencies; these may have totalled some $44 billion in 1979. Part of this debt (perhaps $10 billion) may be considered as self liquidating since it is repayable in the form of counter-deliveries of the resultant products of imported industrial plant which the original credit was intended to finance. However, most of this (some $8 billion) will accrue to the Soviet Union, which will greatly facilitate the servicing of Soviet debt (consisting of credit repayments plus interest in terms of exports paid for in convertible currencies). The debt service for other countries varies widely, but is by far the heaviest for Poland (exceeding 50 per cent) and much smaller for the other countries (below 20 per cent).

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